RMI TITANIUM Company

P.O. BOX 269
1000 WARREN AVENUE
NILES, OHIO 44446-0269

Our area code will change to 330 on March 9, 1996.

November 13, 1996

Mr. Thomas W. Matheson
HRP-8J
Ohio Permitting Section
U.S. EPA, Region 5
77 W. Jackson Blvd.
Chicago, IL 60604-3590

Re: Acknowledgement of Closure Certification for the South Chute
RMI Titanium Company - Sodium Plant
OHD 000 810 242, Ohio Permit No. 02-04-0584

Dear Mr. Matheson:

The RMI Titanium Company (RMI) is requesting U.S. EPA acknowledgement of proper closure of the permitted hazardous waste management unit known as the south chute. On March 31, 1994, a closure certification for this area was submitted, by way of registered mail, to both the Ohio EPA and the U.S. EPA (enclosure 1).

On May 24, 1994, Ohio EPA District Office personnel completed a certification inspection at the facility for the south chute. RMI received a letter dated September 1, 1994 from Ohio EPA which stated that this area was closed in accordance with the Ohio EPA approved closure plan. The Ohio EPA sent a copy of this letter to the U.S. EPA at that time (enclosure 2).

Based on this supporting documentation, RMI respectfully requests that the U.S. EPA acknowledge, by way of a letter, that the area formerly known as the south chute is properly closed. Should you require further documentation or information, please contact me.

Sincerely,

Richard L. Mason
Director - Environmental Affairs

Phone: 330/544-7688
FAX: 330/544-1029

JG/sim

enclosures

c: D. P. Korb
W. J. McCarthy

OhioEPA
State of Ohio Environmental Protection Agency

P.O. Box 1049, 1800 WaterMark Dr.
Columbus, Ohio 43266-0149
(614) 644-3020
FAX (614) 644-2329

George V. Voinovich
Governor

September 1, 1994

Re: Completion of Partial Closure Plan
U.S. EPA ID No.
OHD000810242

RMI Titanium
Attn: Mr. David Micsky
600 State Road
Ashtabula, Ohio 44004

Dear Mr. Micsky:

According to Ohio EPA records, on June 9, 1988, the Director of Ohio EPA approved a Part B Permit Application Closure Plan submitted by RMI Titanium Company - Sodium Plant which led to the closure of the hazardous waste pile unit at the RMI Titanium Sodium Plant site in Ashtabula, Ohio. On March 1, 1994, RMI Titanium submitted to the Director certification documents stating that the hazardous waste pile unit had been closed according to the specifications in the approved closure plan. Ohio EPA District Office personnel completed a certification of closure inspection and a review of documents pertaining to the hazardous waste pile unit on May 24, 1994.

Based on this inspection and review, the Ohio EPA has determined that the waste pile has been closed in accordance with the approved closure plan and Rules 3745-66-12 through 3745-66-15 of the Ohio Administrative Code (OAC). RMI Titanium Sodium Plant will remain a treatment, storage, and disposal facility with two other active units.

Please contact the Ohio EPA, Northeast District Office, Attn: Adrienne La Favre, 2110 E. Aurora Road, Twinsburg, Ohio 44087, tel: (216) 963-1200 if you have any questions concerning the closure process or the facility's status.

Sincerely,

Thomas E. Crepeau

Thomas E. Crepeau, Manager
Data Management Section
Division of Hazardous Waste Management

cc: Harriet Croke, U.S. EPA, Region 5
Ed Kitchen, DHWM
Adrienne La Favre, NEDO

RMI TITANIUM Company

P. O. BOX 269
1000 WARREN AVENUE
NILES, OHIO 44446
FAX 216/544-7796

REGISTERED MAIL

March 31, 1994

Mr. Donald Schregardus, Director
Ohio Environmental Protection Agency
Division of Solid and Hazardous
Waste Management
1800 WaterMark Drive
P.O. Box 1049
Columbus, OH 43266-0149

Mr. Valdas Adamkus
Regional Administrator
U.S. EPA
Region 5, HRP-8J
77 West Jackson Blvd.
Chicago, IL 60604-3590

Subject: Closure Certification for the South Chute Waste Pile
RMI Titanium Company, Sodium Plant
OHD 000 810 242, Ohio Permit No. 02-04-0584

Gentlemen:

RMI Titanium Company hereby submits the closure certification for the South Chute Waste Pile. The waste pile was closed in accordance with the methods and specifications described in the Part B Permit Application Closure Plan; the U.S. EPA Hazardous Waste Treatment and Storage Permit (Attachment VI, Closure Plan), issued March 25, 1987; the Ohio EPA Hazardous Waste Facility Permit No. 02-04-0584; applicable regulations including 40 CFR Parts 260 through 264, 270, and 124; and OAC Rules 3745-55-11, 3745-55-78, and 3745-56-58. Closure began on February 14, 1994 and was completed on March 28, 1994.

If you should require any additional information, please contact me at 216/544-7688.

Sincerely,

Richard L. Mason
Director
Environmental Affairs

sim

enclosure

c: Adrienne LaFavre, OEPA-NEDO
Thomas Matheson, USEPA-Region 5
James Steudler, THG

THG & ASSOCIATES

RMI TITANIUM COMPANY

SODIUM PLANT

HAZARDOUS WASTE FACILITY

ASHTABULA, OHIO

U.S. EPA ID No. OHD 000 810 242

Ohio EPA Permit No. 02-04-0584

CLOSURE CERTIFICATION FOR THE

SOUTH CHUTE WASTE PILE

March 31, 1994

U.S. EPA ID No. OHD 000 810 242
Ohio EPA Permit No. 02-04-0584

Introduction

RMI Titanium Company, Sodium Plant retained THG & Associates (Saegertown, PA) to oversee the final closure of the "south chute" waste pile. THG's Registered Professional Engineer (James R. Duby) viewed the waste pile before and after closure, and was present during all critical closure activities including liner decontamination, dike installation, and rinse sampling.

Closure Performance Standard

The closure plan was designed to ensure that the unit being closed will not require further maintenance and controls; to minimize or eliminate threat to human health or the environment; and to avoid escape of hazardous wastes, hazardous waste constituents, leachate, or waste decomposition products to the ground or surface waters or to the atmosphere.

The south chute waste pile was maintained as an indoor dry pile until all cell bath waste had been removed from the site.

The proposed schedule for closure of the waste pile from the Part B Permit is provided in Attachment 1. With approval from the U.S. EPA and Ohio EPA, closure was initiated on February 14, 1994, prior to the 180 day notification period (see Attachments 2 and 3). All waste had been removed after shutdown of the Downs Cell process in February, 1992. The schedule allowed for a "worst case" requirement for a second cleaning that was not needed.

U.S. EPA ID No. OHD 000 810 242
Ohio EPA Permit No. 02-04-0584

Closure Procedures - Disposal or Decontamination of Equipment, Structures, and Soils

Closure of Waste Pile

The waste pile was closed in accordance with the methods and specifications described in the Part B Permit Application closure plan, the U.S. EPA Hazardous Waste Treatment and Storage Permit (Attachment VI, Closure Plan) issued March 25, 1987, the Ohio EPA Hazardous Waste Facility Permit No. 02-04-0584, and applicable regulations including 40 CFR Parts 260 through 264, 270, and 124, and OAC Rules 3745-55-11, 3745-55-78, and 3745-56-58. Closure began on February 14, 1994 and was completed on March 28, 1994.

The south chute (waste pile) remained in operation until all cell bath waste had been removed from the site after shutdown of the Downs Cell process. Since the south chute was an indoor dry pile, all of the material was easily removed. The area was swept and brushed clean of excess residue; with all collected residue being placed in DOT type 1A2 (55-gallon, steel) drums and handled as hazardous waste. The sheet metal siding and roof were removed and a small amount of residue having the appearance of rust scale was found between the waste pile wall and the outside wall. This residue was swept up and placed in the drums noted above for off-site shipment to a hazardous waste facility for disposal. After

removal of the roof and siding, the south chute was covered with a tarpaulin during inactive periods until the closure was complete.

The metal interior side walls and floor were removed, decontaminated via steaming and discarded. The steam condensate was collected by vacuum and transferred into 55-gallon drums. All solid materials collected from decontaminating the steel floor or concrete sub-floor were placed in 55-gallon steel drums, separate from steam condensate, for disposal as hazardous waste. A six inch high by twelve inch wide impermeable dike constructed of concrete was placed around the perimeter of the former waste pile (see Attachment 4). The dismantled waste pile including the concrete walls and surrounding area were then decontaminated with a water wash down. Steam condensate, wash and rinse waters were collected via vacuum and placed in 55-gallon steel drums pending analytical results. Samples of the water obtained via coliwasa were analyzed using SW-846 methods for barium, lead and cadmium (see Attachment 5). The final waste pile rinse contained 0.389 mg/l barium, <0.05 mg/l lead and <0.002 mg/l cadmium, less than the clean closure limits of 10.0 mg/l barium, 0.5 mg/l lead and 0.1 mg/l cadmium as specified in the approved closure plan. Since all the wash and rinse waters contained less than the TCLP limits for barium, lead and cadmium they were discharged through the plant's wastewater treatment facility.

After the above decontamination procedures, the waste pile's remaining concrete sub-floor and walls were removed and discarded as demolition waste. The area was then backfilled with clean gravel. Since the material in the pile was a solid, and since the south chute was lined with steel plate, having a continuous, water-tight weld connecting sides to base, and the surrounding surface area was completely covered with concrete or asphalt, checking for soil contamination was not required.

Notices Required for Disposal Facilities

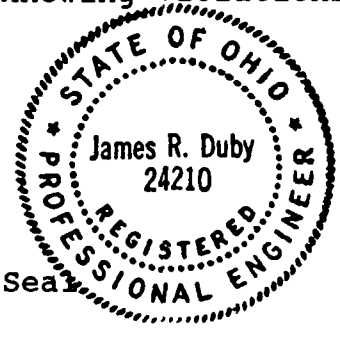
This certification of closure is being submitted by registered mail within 60 days of completion of closure to the Regional Administrator, U.S. EPA, and the Director, OEPA, as required. The certification states that the hazardous waste management unit was closed in accordance with the specifications of the approved closure plan. This report serves as the certification of closure for the south chute waste pile.

THG & ASSOCIATES

U.S. EPA ID No. OHD 000 810 242
Ohio EPA Permit No. 02-04-0584

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



Seal

Signature: James R Duby

James R. Duby, THG & Associates,
Registered Professional Engineer

Date: 3-30-94

Signature: T G Rupert

Timothy G. Rupert, RMI Titanium Company,
Vice President and Chief Financial Officer

Date: 3/31/94

TABLE I-1. CLOSURE SCHEDULE FOR THE THERMAL OXIDATION FACILITY AND WASTE PILE

	Days
o Notify Ohio Environmental Protection Agency of intent to initiate closure	-180
o Initiate Closure	0
o Remove waste inventory, load and transfer	10
o Decontaminate building	40
o Rinse water sampling	50
o Analyze samples and results	70
o Decontaminate equipment	80
o RMI Company and independent Professional Engineer certify closure	110
or	
0 Repeat building decontamination, rinse water sampling, and sample analysis prior to decontamination of equipment	150
o RMI Company and independent Professional Engineer certify closure	180

RMI TITANIUM Company

P. O. BOX 269
1000 WARREN AVENUE
NILES, OHIO 44446-0269
FAX 216/544-7798

Attachment 2

EXPRESS MAIL

November 10, 1993

Mr. Tom Matheson
Environmental Scientist
United States Environmental Protection Agency
Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3590

Attention: HRPP-8J

Re: RMI Titanium Company - Sodium Plant
OHD 000-810-242
Notification of South Chute Waste Pile Closure

Dear Mr. Matheson:

The hazardous waste management permit for the RMI Titanium Company - Sodium Plant, U.S.EPA Facility I.D. #OHD 000-810-242, General Facility Condition M.4., states the permittee shall notify the Regional Administrator at least 180 days prior to the date he expects to begin closure. Permit Attachment VI Section I-1F states closure will be initiated 180 days after notice to the State of Ohio. 40 CFR § 264.112(d)(1), states that the owner must notify the Regional Administrator in writing at least 60 days prior to the date on which he expects to begin closure of a waste pile.

The Sodium Plant electrolytic process for the production of sodium and chlorine has been shut down and South Chute waste pile will not receive any waste in the future. Further, Ohio EPA is currently reviewing the Ohio Hazardous Waste Facility Installation and Operation Permit for the RMI Titanium Company - Sodium Plant. By closing the waste pile before the permit is renewed, Ohio will be able to delete a large and unnecessary portion of the permit and thereby expedite its permit renewal. By way of this letter, RMI respectfully requests that the U.S.EPA waive both the 180 day notification period in the permit and the 40 CFR 60 day notification period, and allow for the final closure of the South Chute at the earliest mutually convenient time which can be arranged. Ohio EPA has already provided such a waiver (see enclosed letter). Regardless of whether U.S.EPA elects to waive the notification, this letter is intended

to serve as the written notice to the Regional Administrator of RMI's intent to perform final closure of the waste pile.

Please contact me at 216/544-7688 if you should have any questions or comments

Sincerely,

Richard L. Mason
Director
Environmental Affairs

enclosure

cc: D. P. Korb
D. R. Micsky

OhioEPA
State of Ohio Environmental Protection Agency
Northeast District Office
2110 E. Aurora Road
Twinsburg, Ohio 44087-1969
(216) 425-9171
FAX (216) 487-0769

George V. Voinovich
Governor
Donald R. Schregardus
Director

Attachment 3

July 21, 1993

RE: RMI TITANIUM CO.
SODIUM PLANT
ASHTABULA COUNTY
OHD 000-810-242
#02-04-0584

Mr. Richard Mason
RMI Titanium Co.
1000 Warren Ave.
Niles, Ohio 44446-0269

Dear Mr. Mason:

We are in receipt of your July 19, 1993 letter. The Ohio EPA elects to waive the notification period prescribed in both the Part B Permit and section 3745-55-12 of the OAC. RMI Titanium Co. can begin closure of the South Chute. Please note that closure must follow all the requirements of the closure plan included in the Part B Permit and the OAC.

Please notify the Northeast District Office prior to the onset of closure activities. I would like to inspect the unit. Perhaps we can coordinate my inspection of the South Chute with my presence at the soil sampling of the bath storage area.

Please contact me at (216) 963-1250 with any questions.

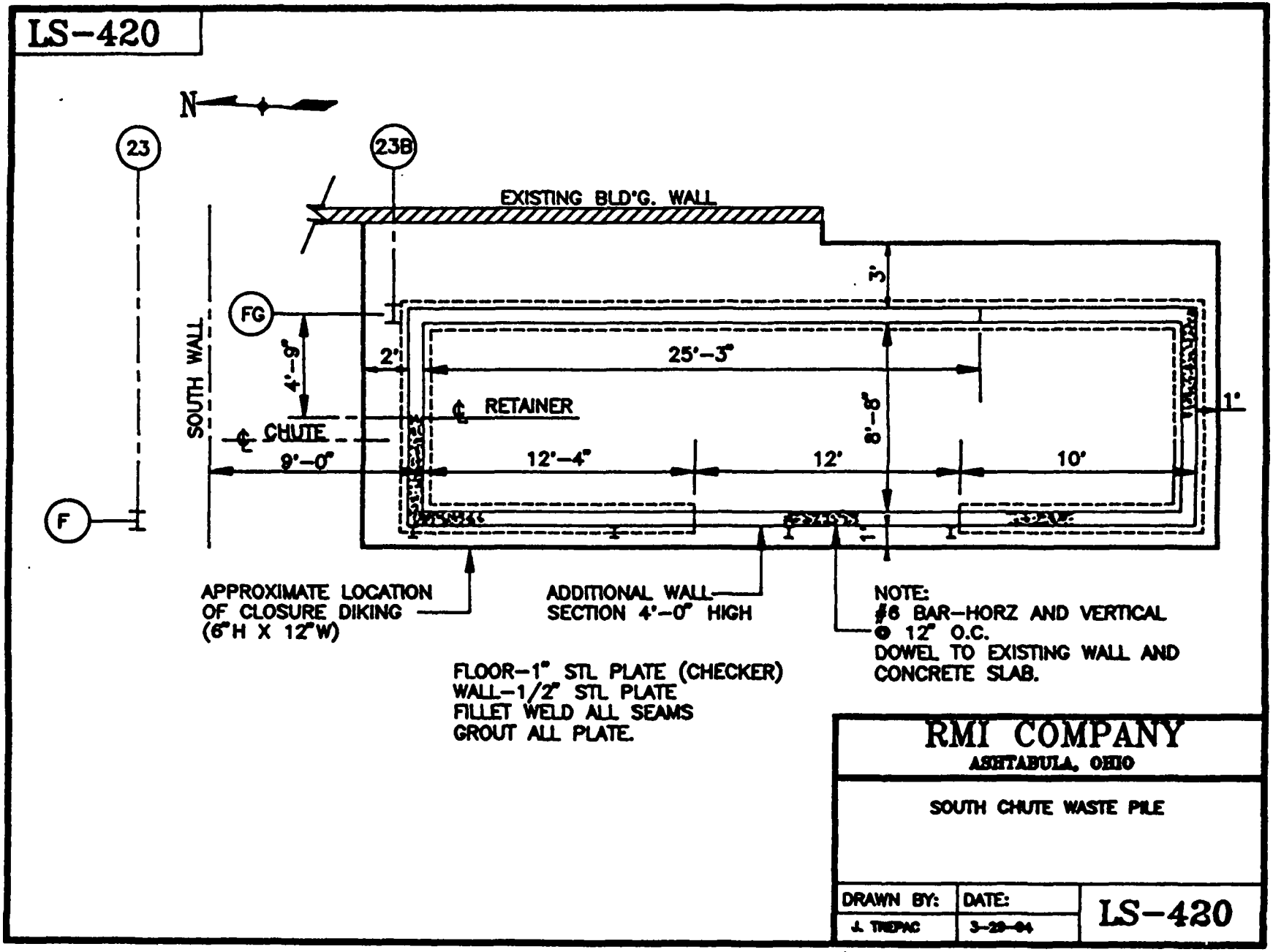
Sincerely,

Adrienne La Favre

Adrienne La Favre
Environmental Specialist
Division of Hazardous Waste
Management

ALF/fwn

cc: Ed Lim, OEPA, CO, DHWM
Randy Meyer, OEPA, CO, DHWM
Frank Popotnik, OEPA, NEDO, DHWM


LS-420
N
23
23B
EXISTING BLD'G. WALL
FG
F
SOUTH WALL
4'-9"
2'
25'-3"
3'
8'-8"
1"
℄ RETAINER
℄ CHUTE
9'-0"
12'-4"
12'
10'
APPROXIMATE LOCATION
OF CLOSURE DIKING
(6"H X 12"W)
ADDITIONAL WALL
SECTION 4'-0" HIGH
NOTE:
#6 BAR-HORZ AND VERTICAL
@ 12" O.C.
DOWEL TO EXISTING WALL AND
CONCRETE SLAB.
FLOOR-1" STL PLATE (CHECKER)
WALL-1/2" STL PLATE
FILLET WELD ALL SEAMS
GROUT ALL PLATE.
RMI COMPANY
ASHTABULA, OHIO
SOUTH CHUTE WASTE PILE
DRAWN BY:
J. TREPAC
DATE:
3-29-04
LS-420

Microbac Laboratories, Inc.
ERIE TESTING LAB
1962 WAGER ROAD
ERIE PA 16509
(814)825-8533

_ Attachment 5

AIR • FUEL • WATER • FOOD • WASTES

CERTIFICATE OF ANALYSIS

RMI COMPANY, SODIUM PLANT

P.O. BOX 550
ATTN: DOUG KORB
ASHTABULA OH 44004

Date Reported 3/28/94
Date Received 3/17/94
Order No 9403-00828
Invoice No 19806

Cust # 018044
Sampled Date 3/17/94
Sampled Time 10:15
Sample Id RINSE

Permit No
Cust P.O. 3-BL 59092

Subject: SOUTH CHUTE RINSE (OUTSIDE WALL) SOUTH CHUTE CLOSURE

TEST	METHOD	RESULT	UNIT	DATE	TIME	TECH
1 SOUTH CHUTE RINSE (OUTSIDE WALL) 3/17/94 @ 10:15 A.M.						
BARIUM	EPA 1987 ICP	0.389	MG/L	3/22/94	14:15	MAR
LEAD	EPA 1987 ICP	(0.050	MG/L	3/22/94	14:14	MAR
CADMIUM	EPA 1987 ICP	(0.002	MG/L	3/22/94	14:53	MAR

SAMPLE SUBMITTED BY RMI/SODIUM PLANT

Microbac Laboratories, Inc.
ERIE TESTING LAB
1962 WAGER ROAD
ERIE PA 16509
(814)825-8533

AIR • FUEL • WATER • FOOD • WASTES

CERTIFICATE OF ANALYSIS

RMI COMPANY, SODIUM PLANT

P.O. BOX 550
ATTN: DOUG KORB
ASHTABULA OH 44004

Date Reported 3/04/94
Date Received 3/02/94
Order No 9403-00222
Invoice No 18812

Cust # 018044
Sampled Date 3/02/94
Sampled Time 00:00
Sample Id WATER

Permit No
Cust P.O. 3-BL 59092

Subject: 3-WASTEWATER SAMPLES (SOUTH CHUTE CLOSURE)

TEST	METHOD	RESULT	UNIT	DATE	TIME	TECH
1 SOUTH CHUTE RISE (INSIDE CHUTE) 3/2/94 @ 0830 (COMP.)						
BARIUM	EPA 1987 ICP	2.72	MG/L	3/03/94	13:43	MWR
LEAD	EPA 1987 ICP	(0.050	MG/L	3/03/94	13:42	MWR
CADMIUM	EPA 1987 ICP	0.011	MG/L	3/03/94	13:42	MWR
2 COMPOSITE RINSE WATER, DRUMS, 3/2/94 @ 0900						
BARIUM	EPA 1987 ICP	0.600	MG/L	3/03/94	13:43	MWR
LEAD	EPA 1987 ICP	(0.050	MG/L	3/03/94	13:42	MWR
CADMIUM	EPA 1987 ICP	0.003	MG/L	3/03/94	13:42	MWR
3 SOUTH CHUTE RINSE (OUTSIDE WALL) 3/2/94 @ 1115, COMPOSITE						
BARIUM	EPA 1987 ICP	29.9	MG/L	3/03/94	13:43	MWR
LEAD	EPA 1987 ICP	0.596	MG/L	3/03/94	13:42	MWR
CADMIUM	EPA 1987 ICP	0.017	MG/L	3/03/94	13:42	MWR
RUSH CHARGE				3/02/94		MWR

SAMPLES SUBMITTED BY RMI/SODIUM

RMI TITANIUM Company

P. O. BOX 269
1000 WARREN AVENUE
NILES, OHIO 44446
FAX 216/544-7796

August 10, 1994

Adrienne LaFavre, Ph.D.
Environmental Specialist
Ohio EPA
Northeast District Office
2110 E. Aurora Road
Twinsburg, OH 44087-1969

Subject: RMI Titanium Company - Sodium Plant
Generator Closure Certification - Cell Shell Storage Area
OHD 000 810 242, Ohio Permit No. 02-04-0584

Dear Dr. LaFavre:

As you have brought to my attention, the subject report, which was transmitted to you by my letter of 26 May 1994, is missing pages from Attachment 7. Here is a copy of the eleven missing pages. Please insert them into Attachment 7 between Page 4 of the letter report and the Attachment (to the Attachment) Numbered 2 (IRIS printout).

I am assuming the U.S. EPA copy is also missing the pages and am forwarding a copy to Tom Matheson, with a copy of this letter.

I apologize to both agencies for any inconvenience this has caused. As always, please call with any questions, 216/544-7688.

Sincerely,

Richard L. Mason
Director
Environmental Affairs

sim

enclosure

cc: T. Matheson, USEPA
D. Micsky, RMI

this rectangular area. Because this area was used for equipment storage, Area A was conservatively assumed to have zero vegetative cover.

RISK-BASED CLEANUP LEVELS

The three risk-based cleanup levels calculated for barium are as follows (see Tables 1 through 3 of Attachment 1):

- 5,000 mg/kg, based on a residential child scenario
- 34,000 mg/kg, based on a residential adult scenario
- 71,000 mg/kg, based on an adult industrial scenario

As noted in RMI's "Soil Sampling Plan for Cell Shell Storage Area" (January 1993), the maximum individual surficial soil concentration measured for barium was 2,470 mg/kg at SS#6 in Area A (see Attachment 3), which is approximately one half of the lowest estimated cleanup level. Only one other surficial soil sample had a concentration of barium greater than 2,000 mg/kg (sample SS#18 with a concentration of 2,390 mg/kg). The mean of the twelve surficial soil samples from Area A reported by RMI was 1,621 mg/kg for barium. Therefore, based on this analysis, the available surficial soil data indicate that concentrations of barium are below risk-based levels which were calculated according to Ohio EPA guidance.

UNCERTAINTY

There are several sources of uncertainty inherent in the calculation of these cleanup levels. These include the following:

- The use of IRIS and HEAST toxicity factors (which have inherently conservative assumptions and safety factors)
- Conservative values used for many intake parameters (exposure frequency, duration, body weight, etc.)
- The use of a dermal absorption factor
- Use of default parameters in the estimation of air concentrations based on the soil medium

Overall, it is our opinion that the calculated cleanup level values err on the side of caution.

It has been our pleasure to be of assistance to RMI on this project. Please call us with any questions or comments.

Sincerely,

ECKENFELDER INC.®

Laura A. Mahoney

Laura A. Mahoney
Senior Manager, Risk Assessment Services

cc: Jeffrey L. Pintenich, P.E., CHMM

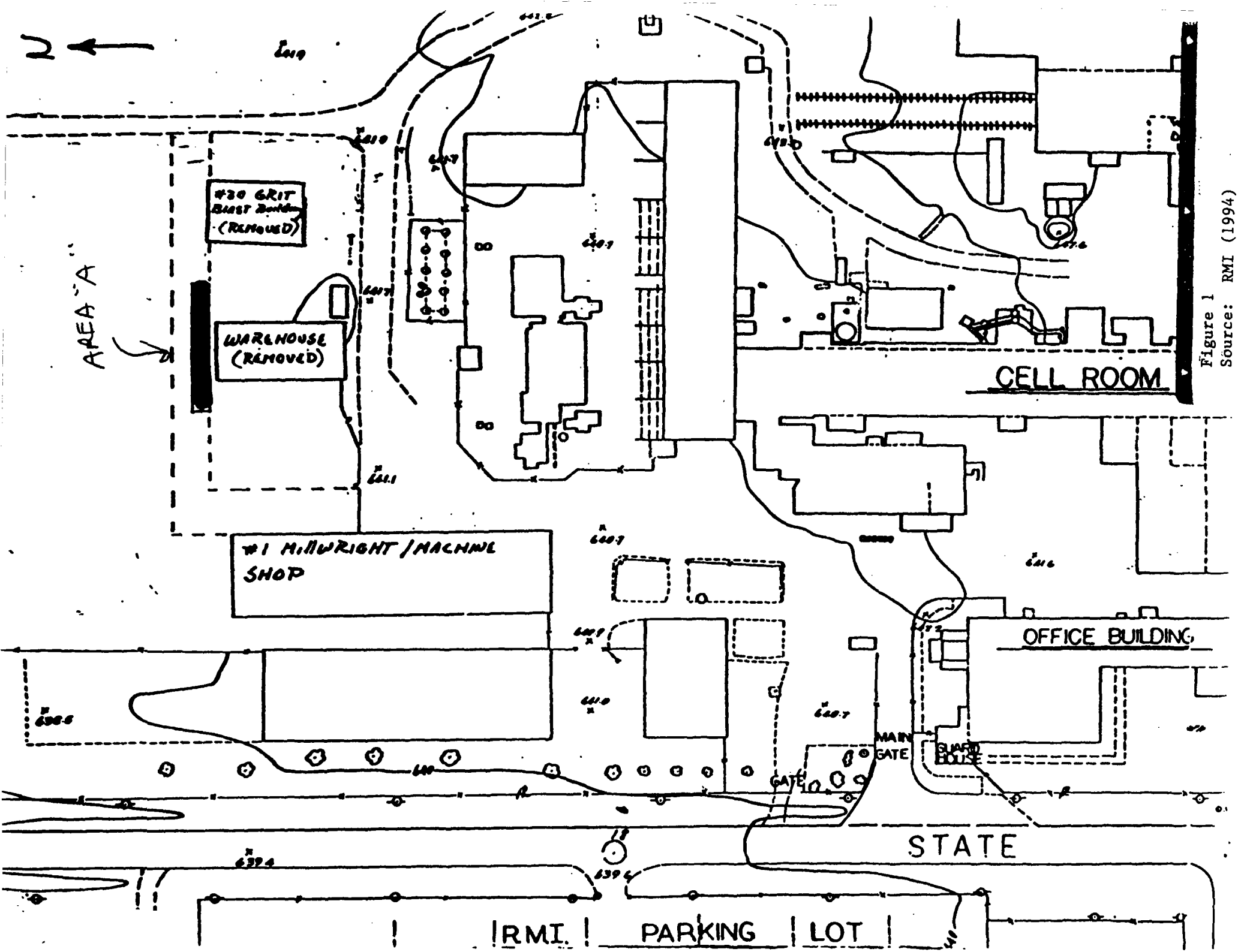


Figure 1
Source: RMI (1994)

RMI Titanium Company - Sodium Plant
Surficial Soil Sampling Pattern

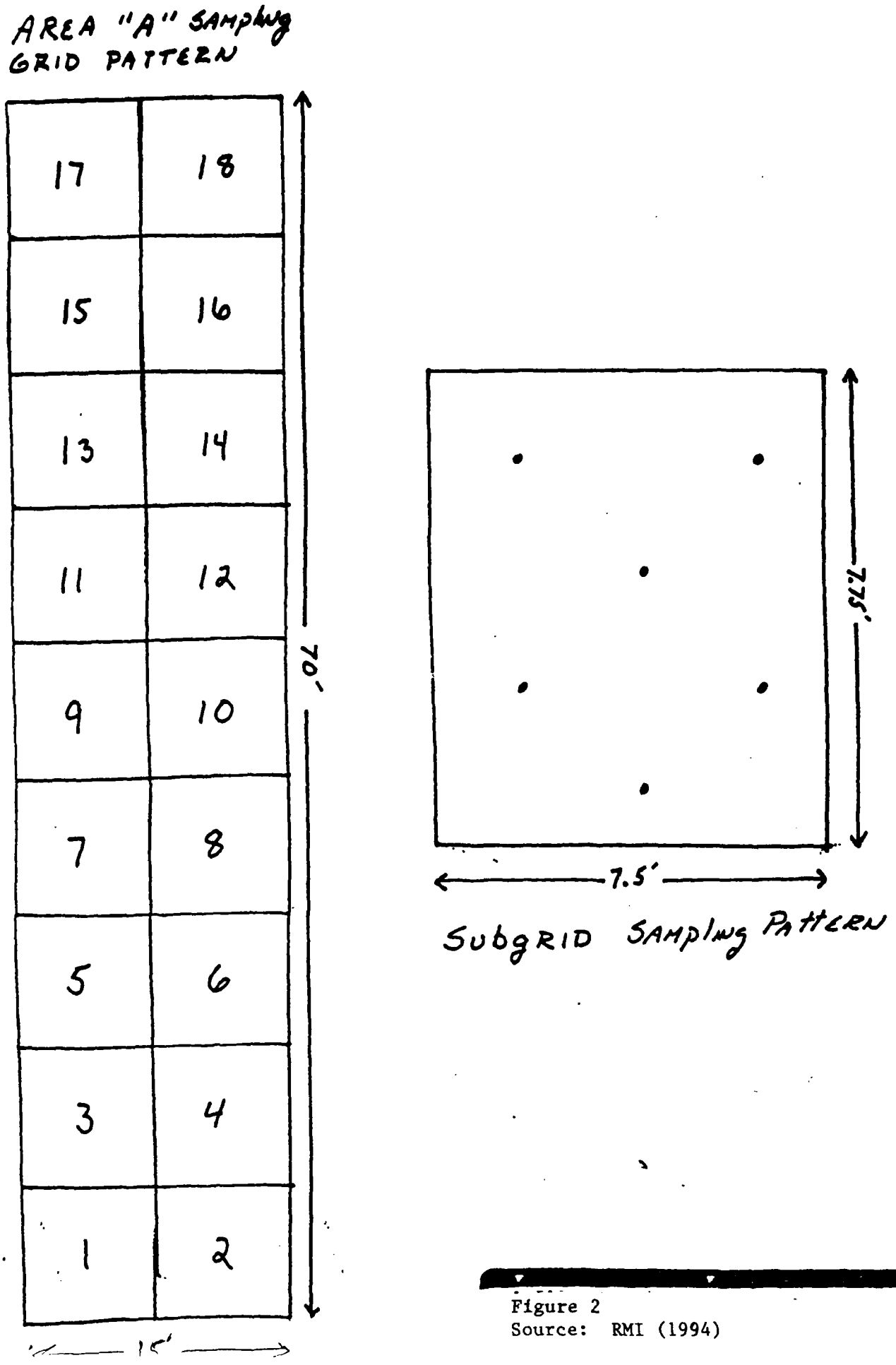


Figure 2
Source: RMI (1994)

REFERENCES

Cowherd, C., Muleski, G., Engelhart, P., and Gillete, D. 1985. *Rapid Assessment of Exposure to Particulate Emissions from Surface Contamination.* Prepared for EPA Office of Health and Environmental Assessment. EPA/600/8-85/002.

Integrated Risk Information System (IRIS), ran April 28, 1994. (On-line database for USEPA - approved toxicity information).

RMI Titanium Company, 1993. "Soil Sampling Plan for Cell Shell Storage Area, Sodium Plant, Ashtabula, Ohio" (January 1993).

Ohio EPA, 1993. *Closure Plan Review Guidance for RCRA Facilities*, Interim Final, September 1993.

USEPA, 1991. *Risk Assessment Guidance for Superfund: Volume I - Human Health Evaluation Manual, (Part B, Development of Risk-Based Preliminary Remediation Goals),* Interim Report, Publication 9285.07-01B, Office of Emergency and Remedial Response, December 1991.

USEPA, 1993a. "Health Effects Assessment Summary Tables (HEAST), Annual FY-1993," OERR 9200.6-303(93-1), March 1993.

USEPA, 1993b. "Health Effects Assessment Summary Tables (HEAST), Supplement No. 1 to the March 1993 Annual Update," OHEA ECAO-CIN-821, July 1993.

ATTACHMENT 1

CALCULATIONS TO SUPPORT RISK-BASED SURFICIAL SOIL CLEANUP LEVELS

TABLE 1

RISK-BASED CLEANUP LEVELS FOR SURFICIAL SOILS

RESIDENTIAL ADULT SCENARIO

RMI TITANIUM COMPANY - SODIUM PLANT (RMI-SP)
ASHTABULA, OHIO

Constituent	NC Cleanup Level (mg/kg)	EF (days/yr)	ED (yr)	BW (kg)	CF (kg/mg)	SA (cm^2/day)	AF (mg/cm^2)	ABS (unitless)	NC AT (days)	IR (soil) (mg/day)	CF (kg/mg)	FI (unitless)	Oral Reference Dose (RfD) (mg/kg-day)	PEF (m^3/kg)	VF (m^3/kg)	IR (air) (m^3/hr)	ET (hr/day)	Inhalation Reference Dose (RfD) (mg/kg-day)	Target Hazard Index (THI)
Barium	3.4E+04	350	30	70	1.0E-06	5,000	1.0	0.01	10,950	100	1.0E-06	1.0	0.07	4.53E+10	NA	0.83	24	0.0001	1.0

Note: These risk-based cleanup levels are based on the dermal contact, incidental ingestion, and inhalation exposure routes.

TABLE 2

RISK-BASED CLEANUP LEVELS FOR SURFICIAL SOILS

RESIDENTIAL CHILD (AGES 1 - 6) SCENARIO

RMI TITANIUM COMPANY - SODIUM PLANT (RMI-SP)
ASHTABULA, OHIO

Constituent	NC Cleanup Level (mg/kg)	EF (days/yr)	ED (yr)	BW (kg)	CF (kg/mg)	SA (cm^2/day)	AF (mg/cm^2)	ABS (unitless)	NC AT (days)	IR (soil) (mg/day)	CF (kg/mg)	FI (unitless)	Oral Reference Dose (RfD) (mg/kg-day)	PEF (m^3/kg)	VF (m^3/kg)	IR (air) (m^3/hr)	ET (hr/day)	Inhalation Reference Dose (RfD) (mg/kg-day)	Target Hazard Index (THI)
Barium	5.0E+03	350	6	15	1.0E-06	2,000	1.0	0.01	2,190	200	1.0E-06	1.0	0.07	4.53E+10	NA	0.83	24	0.0001	1.0

Note: These risk-based cleanup levels are based on the dermal contact, incidental ingestion, and inhalation exposure routes.

TABLE 3

RISK-BASED CLEANUP LEVELS FOR SURFICIAL SOILS

INDUSTRIAL ADULT SCENARIO

RMI TITANIUM COMPANY - SODIUM PLANT (RMI-SP)
ASHTABULA, OHIO

Constituent	NC Cleanup Level (mg/kg)	EF (days/yr)	ED (yr)	BW (kg)	CF (kg/mg)	SA (cm^2/day)	AF (mg/cm^2)	ABS (unitless)	NC AT (days)	IR (soil) (mg/day)	CF (kg/mg)	FI (unitless)	Oral Reference Dose (RfD) (mg/kg-day)	PEF (m^3/kg)	VF (m^3/kg)	IR (air) (m^3/hr)	ET (hr/day)	Inhalation Reference Dose (RfD) (mg/kg-day)	Target Hazard Index (THI)
Barium	7.1E+04	250	25	70	1.0E-06	5,000	1.0	0.01	9,125	50	1.0E-06	1.0	0.07	4.53E+10	NA	0.83	8	0.0001	1.0

Note: These risk-based cleanup levels are based on the dermal contact, incidental ingestion, and inhalation exposure routes.

TABLE 4

CALCULATION OF PARTICULATE EMISSION FACTOR FOR SURFICIAL SOILS (0.0 - 0.5 FEET)

(AREA A)

RESIDENTIAL AND INDUSTRIAL POPULATIONS

FUTURE SCENARIO

RMI TITANIUM COMPANY - SODIUM PLANT (RMI-SP)

ASHTABULA, OHIO

Parameter	Default	Actual
PEF, particulate emission factor (m^3/kg)	4.63E+09	4.53E+10
LS, Length of side of contaminated area (m)	45	213
V, Wind speed in mixing zone (m/s)	2.25	2.25
DH, Diffusion height, m	2	2
A, Area of contamination (sq. m)	2,025	98.0
G, fraction of vegetative cover (unitless)	0	0
OC, Soil organic carbon content (fraction)	0.02	0.02
Um, mean annual wind speed (m/s)	4.5	4.5
Ut, equivalent threshold value of wind speed at 10 m (m/s)	12.8	12.8
F(x), function dependent of Um/Ut (unitless)	0.0497	0.0497

NOTES FOR TABLE 4

The PEF is determined using the following equation:

$$PEF = \frac{LS \times V \times DH \times 3{,}600\ s/hr}{A} \times \frac{1{,}000\ g/kg}{0.036 \times (1\text{-}G) \times (U_m/U_t)^3 \times F(x)}$$

where:

PEF = particulate emission factor (m^3/kg)

LS = width of contaminated area (m)

V = wind speed in mixing zone (m/s)

DH = diffusion height (m)

A = area of contamination (m^2)

0.036 = respirable fraction (g/m^2-hr)

G = fraction of vegetative cover (unitless)

U_m = mean annual wind speed (m/s)

U_t = equivalent threshold value of wind speed at 10 m (m/s)

F(x) = function dependent on U_m/U_t (unitless; equivalent to 0.0497 as determined by Cowherd, 1985).

Source: USEPA, 1991. *Risk Assessment Guidance for Superfund: Volume I - Human Health Evaluation Manual, (Part B, Development of Risk-Based Preliminary Remediation Goals)*, Interim Report, Publication 9285.07-01B, Office of Emergency and Remedial Response, November 1991.

RMI TITANIUM Company

P. O. BOX 269
1000 WARREN AVENUE
NILES, OHIO 44446
FAX 216/544-7796

CERTIFIED MAIL

May 26, 1994

Mr. Donald Schregardus, Director
Ohio Environmental Protection Agency
1800 WaterMark Drive
P.O. Box 1049
Columbus, OH 43266-0149

Subject: RMI Titanium Company - Sodium Plant
Generator Closure Certification - Cell Shell Storage Area
OHD 000 810 242, Ohio Permit No. 02-04-0584

Gentlemen:

Enclosed please find the closure certification for the unit noted above. As noted in the Plan, RMI has determined the risk-based cleanup levels for the compound of interest (Barium). Based on this analysis, the surficial soil data obtained from the Cell Shell Storage Area indicate that barium concentrations are below risk-based levels calculated according to Ohio EPA guidance. Therefore, RMI has shown the Area to be risk-based clean and has closed the Area with no further action.

Please contact me at 216/544-7688 if you should have any questions or comments.

Sincerely,

Richard L. Mason
Director,
Environmental Affairs

cc: Adrienne La Favre, OEPA\NEDO
Thomas Matheson, USEPA, Region 5

D.P. Korb
W.J. McCarthy
D.R. Micsky
T.G. Rupert

RMI TITANIUM COMPANY

SODIUM PLANT

STATE ROAD AND EAST 6TH STREET

ASHTABULA, OHIO 44004

U.S. EPA I.D. #OHD000810242

Ohio EPA Permit No. 02-04-0584

GENERATOR CLOSURE CERTIFICATION

FOR THE

CELL SHELL STORAGE AREA

May, 1994

1. Description of the Facility:

The RMI Titanium Company - Sodium Plant (RMI-SP) is located in Ashtabula County, Ashtabula, Ohio and is owned by the RMI Titanium Company, Niles, Ohio. The equipment and structure on the 61 acre site are owned by the RMI Titanium Company. The RMI-SP now employs approximately 10 to 20 people. The plant's EPA I.D. number is OHD0000810242. The plant's Standard Industrial Classification Numbers when operating were 2812: Manufacture of Chlorine, and 2819: Manufacture of Sodium.

The Sodium Plant ceased manufacturing in February, 1992, but continues ancillary purification and marketing of stored sodium and treatment of resultant wastes. Sodium and chlorine were manufactured via the Down's Electrolytic Process

The area to be closed is located on the south side of an east-west roadway at the northern end of the facility where cell shells had been stored. For a map of the facility see Attachment #1 and for a detailed drawing of the unit to be closed see Attachment #2. Sampling conducted on October 12, 1992 revealed that 5 of the cell shell bottoms contained firecrete mortar containing barium concentrations above the TCLP limits. This firecrete mortar was removed from the cell shells, drummed and disposed as hazardous waste. The cell shells were then dismantled.

A surficial soil sample was collected on December 16, 1992 from area A where the cell shell with the highest barium concentration was located. The sampling was conducted by taking a composite surficial soil sample from a 10' x 10' area where the cell shell was stored. The sample was analyzed for barium concentrations via the TCLP method. The sample result identified as "Cell Shell Storage Area" showed a result of 2.39 mg/l of barium under the TCLP method. See Attachment #3 for sample results.

Ohio EPA, Northeast District Office (OEPA\NEDO) requested the submittal of a formal sampling plan for this area. RMI submitted the plan on January 19, 1993 (see Attachment #4) and OEPA\NEDO approved the plan with minor modifications via letter dated January 28, 1993 (see Attachment #5).

Surficial soil sampling was conducted with Ohio EPA personnel in attendance (Mrs. Adrienne La Favre, Ph.D.) on October 28, 1993 in the area south of the gravel roadway (AREA A) to define any barium contamination from the firecrete mortar material which may have spilled onto the soil. Six surficial soil samples were collected and split for analysis. The number of samples meets the requirements of SW-846, Chapter 9, "Sampling Plan". The analytical data and calculations regarding appropriate number of samples to collect are presented in Attachment #6.

2. Description of Waste Management Unit to be Closed:

The area to be closed is located on the south side of an east-west roadway at the northern end of the facility where cell shells had been stored. For a map of the facility see Attachment #1 and for a detailed drawing of the unit to be closed see Attachment #2.

3. Map of Facility

See Attachment #1.

4. Detailed Drawing of Unit to be Closed

See Attachment #2

5. List of Hazardous Waste:

Source Name	Chemical	EPA Waste No.	Maximum Inventory (Lbs.)
Cell Shell Storage Area	Barium	D005	N/A

6. Removal of Waste

Not Applicable for clean closure via risk assessment.

7. Schedule for Closure

Not Applicable for clean closure via risk assessment.

8. Air Emission and Wastewater

Not Applicable for clean closure via risk assessment.

9. Personnel Safety and Fire Prevention

Not Applicable for clean closure via risk assessment.

10. Decontamination Efforts

Not Applicable for clean closure via risk assessment.

11. Remediation Standards for Soils

RMI has calculated the risk-based cleanup levels for barium in soil as follows (see Attachment #7):

- 5,000 mg/kg, based on a residential child scenario
- 34,000 mg/kg, based on a residential adult scenario
- 71,000 mg/kg, based on an adult industrial scenario

12. Risk-Based Remediation Standards

RMI employed Eckenfelder, Inc. (Nashville, TN) to calculate risk-based cleanup levels for barium in surficial soil based on the latest Ohio EPA Guidance ("Closure Plan Review Guidance for RCRA Facilities", Interim Final, September 1, 1993).

The three risk-based cleanup levels for barium in soil are as follows (see Attachment #7):

- 5,000 mg/kg, based on a residential child scenario
- 34,000 mg/kg, based on a residential adult scenario
- 71,000 mg/kg, based on an adult industrial scenario

As noted in the barium analytical data (Attachment #6), the maximum individual surficial soil concentration measured for barium was 2,470 mg/kg at SS #6. Only one other surficial soil sample had a

concentration of barium greater than 2,000 mg/kg (SS #18, 2,390 mg/kg). The mean of the split surficial soil samples was 1,621 mg/kg for barium. The surficial soil data indicate that concentrations of barium are below risk-based levels calculated according to Ohio EPA guidance. Therefore, the Cell Shell Storage Area is clean based on risk-assessment and no further remedial action is required to close the Area.

13. Sampling Plan and Analytical Procedures

Not Applicable for clean closure via risk assessment.

14. Description of Removal Efforts

Not Applicable for clean closure via risk assessment.

15. Specifics for Landfill Closure

Not Applicable for clean closure via risk assessment.

16. Certification

This certification of generator closure is being submitted by certified mail to the Director, Ohio EPA, the Northeast District Office, Ohio EPA, and Region 5, U.S. EPA. The certification states that the hazardous waste management unit was closed in accordance with the specifications of the closure plan. This report serves as the certification of closure for the Cell Shell Storage Area.

16. Status of Facility after Closure

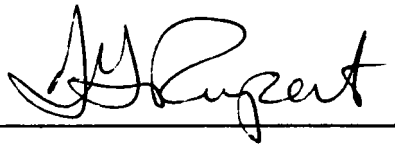
The area is no longer used for any further cell shell storage.

17. Cost Estimates for Closure

Not Applicable for clean closure via risk assessment.

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

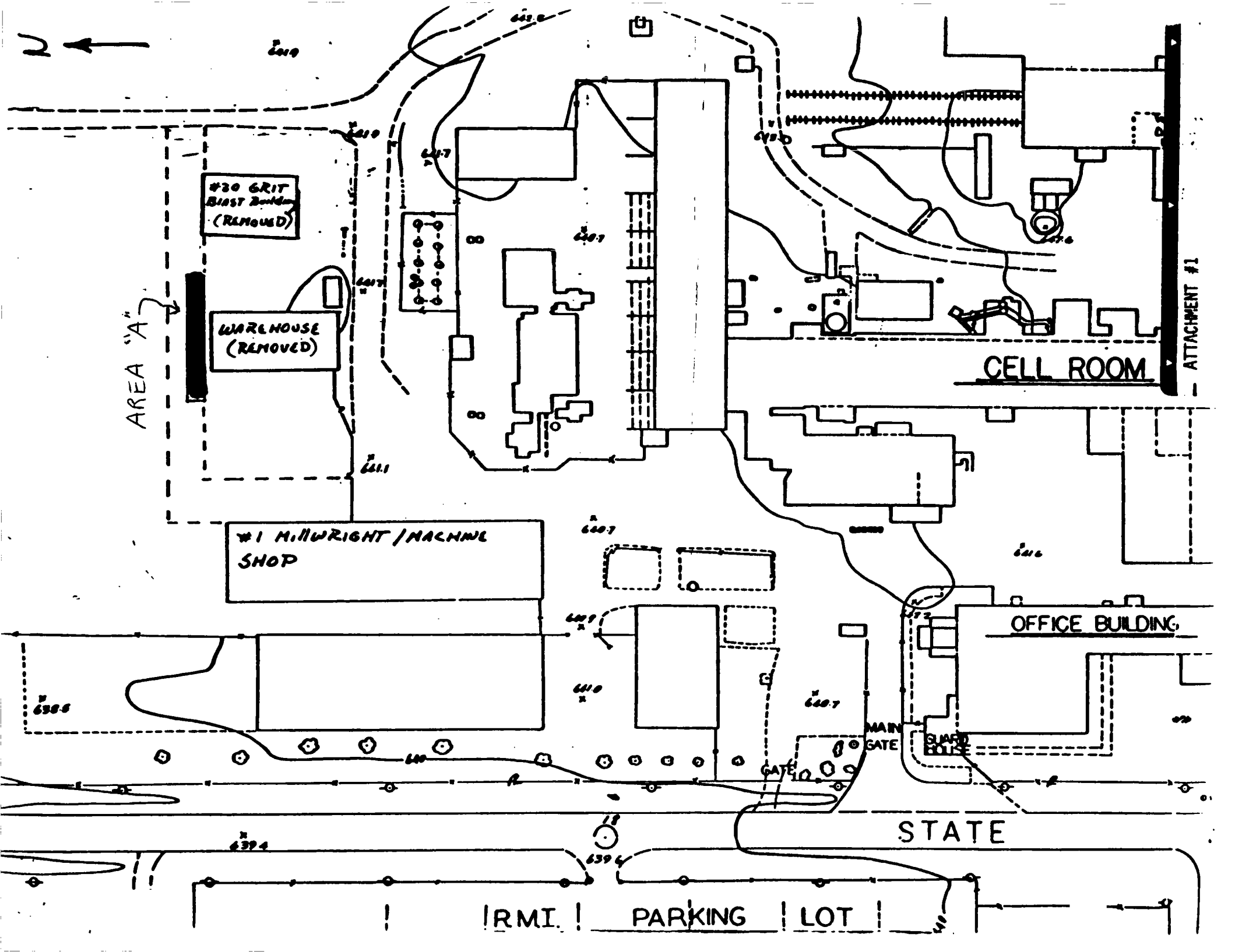
Signature: 

Timothy G. Rupert, RMI Titanium Company,
Senior Vice President and Chief Financial Officer

Date: 4/23/94

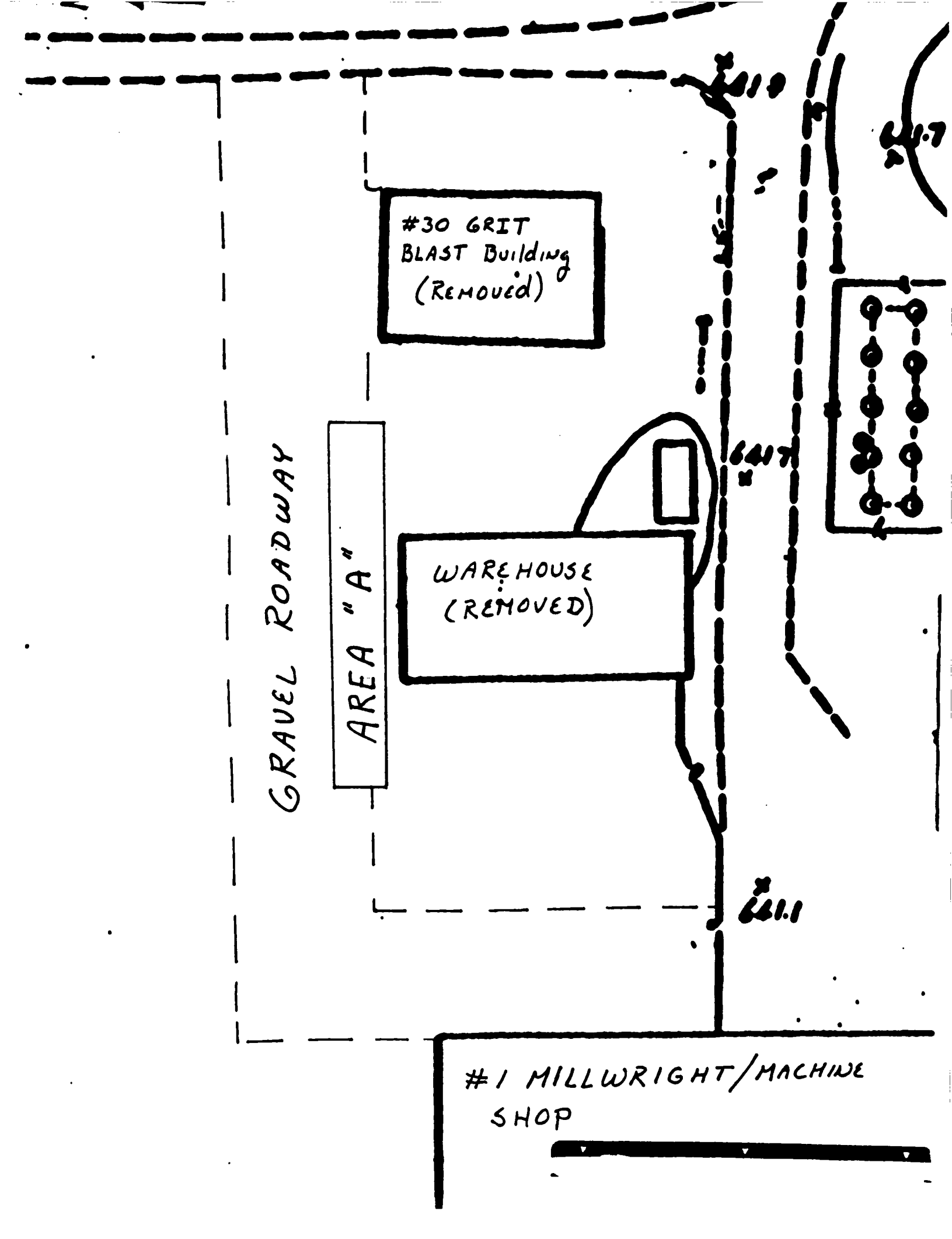
ATTACHMENT #1

FACILITY MAP


#30 GRIT BLAST Building (REMOVED)
WAREHOUSE (REMOVED)
AREA "A"
#1 MILLWRIGHT / MACHINE SHOP
CELL ROOM
ATTACHMENT #1
OFFICE BUILDING
MAIN GATE
GUARD HOUSE
GATE
STATE
RMI. PARKING LOT

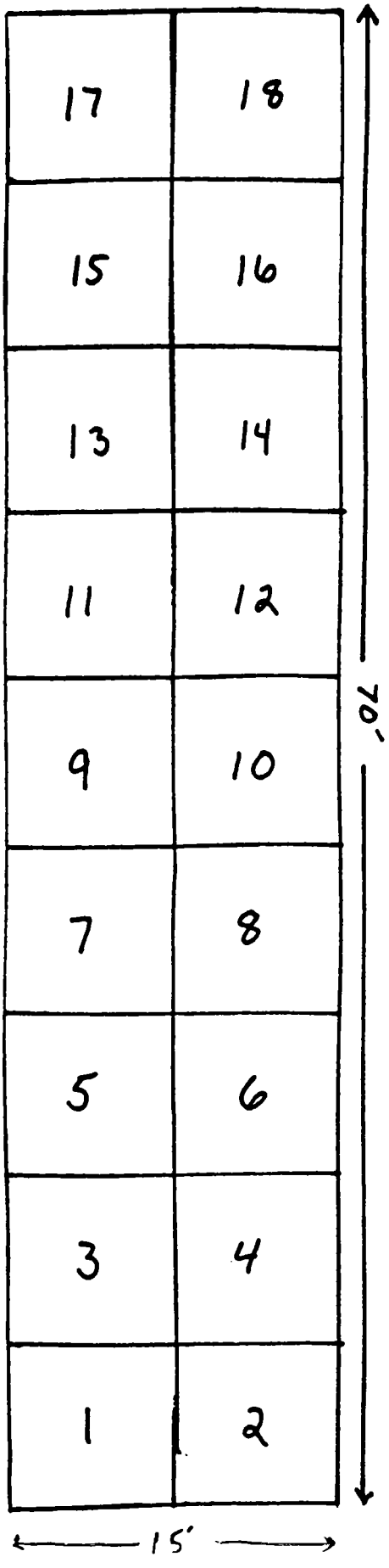
ATTACHMENT #2

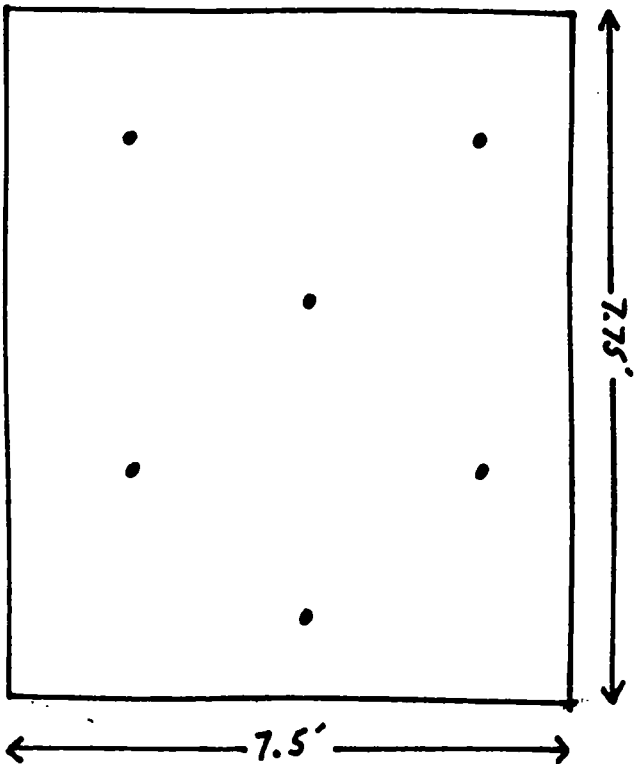
DRAWING OF UNIT


#30 GRIT BLAST Building (Removed)
GRAVEL ROADWAY
AREA "A"
WAREHOUSE (REMOVED)
#1 MILLWRIGHT/MACHINE SHOP

SURFICIAL SOIL SAMPLING PATTERN

AREA "A" SAMPLING GRID PATTERN





SUBGRID SAMPLING PATTERN

ATTACHMENT #3

ANALYTICAL DATA

Microbac
ERIE TESTING LAB
1962 WAGNER ROAD
ERIE PA 16509
(814)825-8533

AIR • FUEL • WATER • FOOD • WASTES

CERTIFICATE OF ANALYSIS

Attn: Dave Micsky
RMI COMPANY, SODIUM PLANT
P.O. BOX 490
ATTN: DOUG KORB
ASHTABULA OH 44004

Date Reported 1/15/93
Date Received 12/17/92
Order No 9212-00840
Invoice No 458

Cust # 18044
Cust P.O.# 3-78564 +1

Subject : SOIL SAMPLES FOR ANALYSIS, RECD. 12/17/92

ID# DESCRIPTION	METHOD	RESULT	UNITS	% REC.	ADJ. RESULT	TECH	DATE	TIME
1 CELL SHELL STORAGE AREA, 12/16/92 @ 13:00								
TCLP EXTRACT PREP	EPA 1311					NCS	12/21/92	15:20
BARIUM IN EXTRACT	SW846 6010 ICP	2.39	MG/L	99.00	2.41	MAR	1/11/93	16:00
2 "D" BANK FLOOR NORTH, 12/16/92 @ 13:10								
TCLP EXTRACT PREP	EPA 1311					NCS	12/21/92	15:20
BARIUM IN EXTRACT	SW846 6010 ICP	8.48	MG/L	100.00	8.481	MAR	1/11/93	16:00

SIGNED Eric Estes

Send Results To :

Name Dave Micsky
Company RMI Titanium Co Sodium Plants
Address PO Box 490
Ashtabula OH 44004
Phone 216 544-7802

Page 1 of 1
Cooler No. 1 of 1
Date Shipped _____

Project No.	Project Name	Sampler's (Signature)
	Soil Samples	D R Micsky

Lab Use Only	Sample No.	Date Sampled	Time	Comp.	Grab	Sample Location / Description	No. of Containers	Water / Wastewater: Extractables & G; No Pres. ( ); 40 ml G (VOA) HCl Pres.; Nitric Acid Pres. ( ); Sulfuric Acid Pres. ( ); Sodium Hyd. Pres.; 250 ml G (ext./met.oct.); 40 ml G (VOA); 1L P (met./Hg/Cn/S---)	Soil / Sed / Sldg	Analysis Requested
	1	12/16/92	1300	X		Coal Shed Garage Area	1	X		TCLP - BARIUM
	2	12/16/92	1310	X		"D" Bank Floor Mouth	1	X		TCLP - BARIUM

Relinquished by : (Signature)	Date	Time	Received by : (Signature)	Remarks
D R Micsky	12/16	1600		Bill under 3-78564 +1
Relinquished by : (Signature)	Date	Time	Received by : (Signature)	Received for Laboratory by : (Signature) / Date / Time

DISTRIBUTION : Original and yellow copies accompany sample shipment to laboratory :
Yellow copy retained by laboratory: Pink copy retained by samplers.

rev. 7/90

ATTACHMENT #4

SAMPLING PLAN

RMI TITANIUM Company

P. O. BOX 269
1000 WARREN AVENUE
NILES, OHIO 44446-0269
FAX 216/544-7798

January 19, 1993

Mrs. Adrienne LaFavre
Environmental Specialist
Ohio Environmental Inspection Agency
Division of Hazardous Waste Management
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087-1969

Subject: RMI Titanium Company
Sodium Plant
Surficial Soil Sampling Plan

Dear Mrs. LaFavre:

Please find enclosed the sampling plan which you had requested from the RMI Titanium Company - Sodium Plant. The sampling plan addresses the surficial soil sampling of the cell shell storage area at the facility.

In addition to the sampling plan also included is analytical results from a surficial soil composite sample collected in the cell shell storage area shortly after your visit on December 3, 1992.

Please contact me at 216/ 544-7802 if you should have any questions or comments.

Sincerely,

David R. Micsky
Environmental Engineer

cc: R.L. Mason
D.P. Korb

RMI TITANIUM COMPANY

SODIUM PLANT

ASTABULA, OHIO

SOIL SAMPLING PLAN FOR

CELL SHELL STORAGE AREA

JANUARY 1993

INTRODUCTION

This sampling plan is applicable to the collection, shipment and analysis of samples from the cell shell area at the RMI Titanium Company - Sodium Plant (RMI-SP) Ashtabula, Ohio.

The area to be studied is located on the south side of an east-west roadway at the northern end of the facility where cell shells had been stored. For a location of the sampling area see attachment #1. Sampling conducted on October 12, 1992 revealed that 5 of the cell shell bottoms contained firecrete mortar which when sampled contained barium concentrations above the TCLP limits. This firecrete mortar was removed from the cell shells, drummed and disposed as hazardous waste. As the mortar material was removed from the cell shells the shells were moved from the south side of the roadway to their present location north of the roadway.

A surficial soil sample was collected on December 16, 1992 from area A where the cell shell with the highest barium concentration was located. The sampling was conducted by taking a composite surficial soil sample from a 10' x 10' area where the cell shell was stored. The sample was analyzed for barium concentrations via the TCLP method. The sample result identified as "Cell Shell Storage Area" showed a result of 2.39 mg/l of barium under the TCLP method. For sample results see attachment #2

This sample shows minimal barium contamination to the soil in the area where the cell shell with the highest concentration of barium was located which may prove further analysis of the area

unnecessary.

Further surficial soil sampling if necessary will be conducted in the area south of the gravel roadway (AREA A) to define any barium contamination from the firecrete mortar material which may have spilled onto the soil (see attachment #3).

PURPOSE

The purpose of additional sampling is to ensure the proper collection, shipment and analysis of surficial soil samples collected from area A at the RMI-SP. Attachment #3 designates the area to be sampled. Collection, handling and shipment of samples will be conducted in accordance with SW-846.

EQUIPMENT

The following equipment will be utilized during sampling.

- Glass sample containers
- Disposable tongue depressors
- Ink pens
- Sharpie pens
- Disposable gloves
- Chain of custody forms
- Blank sample labels
- Plastic bags

PROCEDURE

Sample Site Determination

The proposed sampling location consists of an area 15' by 70' where cell shells were stored along an east-west roadway on the northern end of the facility. Past sampling conducted on October 12, 1992 showed that 5 of these cell shells contained some amounts of a bottom mortar called Firecrete which contained barium levels above the TCLP limits. This mortar was subsequently removed from the cell shells in area A and the mortar was disposed. The cell shells were moved after cleaning to the northern side of the gravel roadway. Samples will be analyzed for barium concentrations via the TCLP method to identify any soil contamination from the mortar material.

Sampling Procedure

Area A has been identified as the area where the cell shell storage was located. Due to the fact that the exact location of all 5 cell shells which contained the high concentrations of barium could not be positively identified area A will be randomly sampled. Area A will be sectioned off into 18 equal grids with the dimensions of 7.5' x 7.75' each (See attachment #4). Of these 18 grids, 6 will be chosen to be sampled with the use of a random numbers table. Each of the 6 sampling grids will be subsampled with 6 grab samples within the grid and composited. Therefore a total of 6 composite surficial soil samples will be collected.

Soil Sample Collection

- All sampling will be conducted by RMI personnel. The sampling team will proceed to Area A with the necessary sampling equipment.

- With the use of a disposable tongue depressor 6 equal surficial grab samples will be obtained from within the grid and composited.

- A sample label will be completed for each of the composites. The following information will appear on each of the samples: sample discription/location, sample date and time, sample collector's initials

- Each composite sample container will be placed inside a plastic bag for deliver to the laboratory.

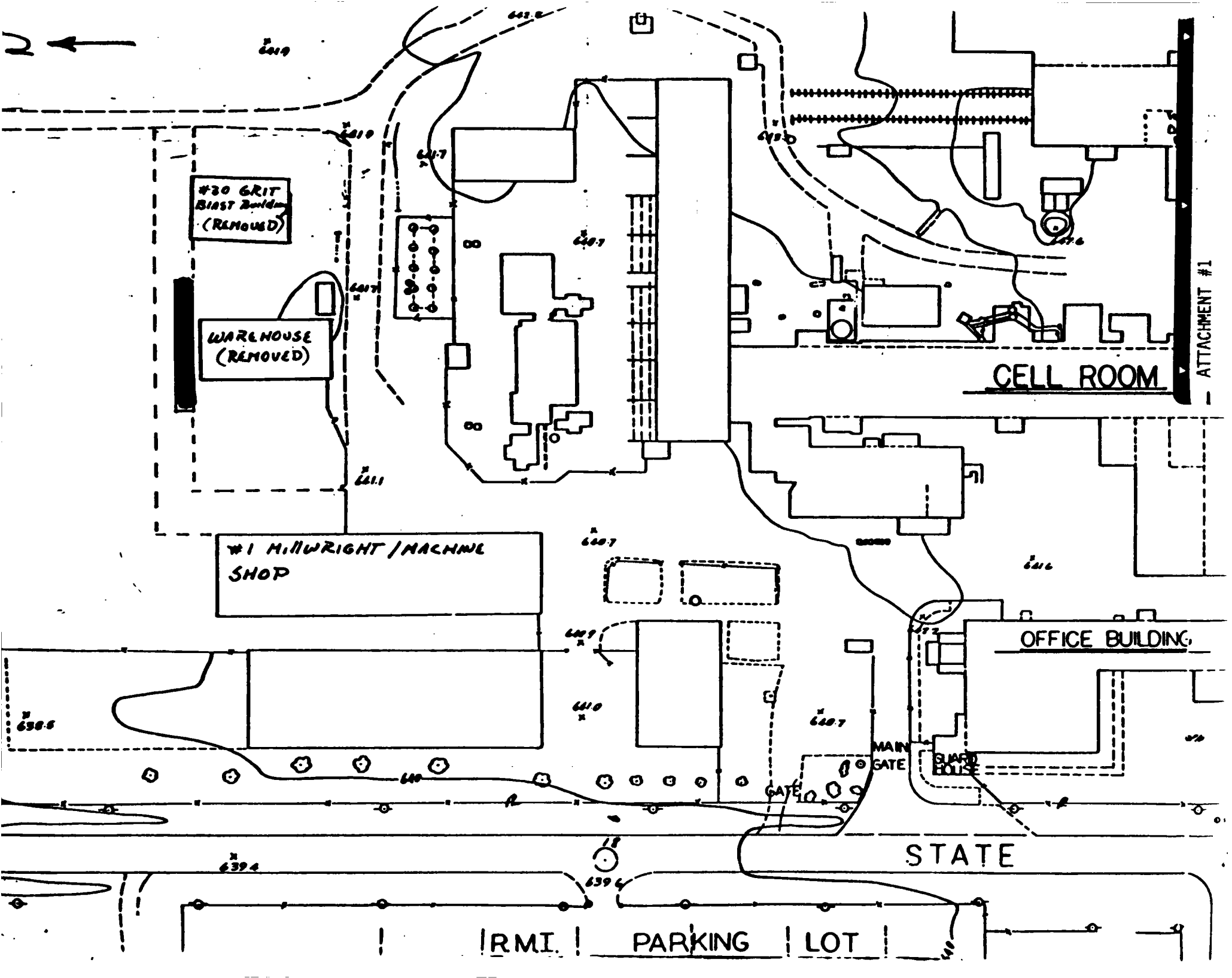
- At one of the sampling locations a duplicate sample will be obtained.

- A chain of custody document will be prepare for the samples and accompany the samples to the laboratory.

Sample Preservation, Storage and Shipment

- All samples will be transferred to the RMI-SP facility to await pickup by a laboratory courier on the following day.

- No sample preservation is necessary.


#30 GRIT BLAST Build... (REMOVED)
WAREHOUSE (REMOVED)
#1 MILLWRIGHT / MACHINE SHOP
CELL ROOM
OFFICE BUILDING
MAIN GATE
GUARD HOUSE
GATE
STATE
RMI. PARKING LOT
ATTACHMENT #1

Microbac
1962 WAGNER ROAD
ERIE PA 16509
(814)825-8533

AIR • FUEL • WATER • FOOD • WASTES

CERTIFICATE OF ANALYSIS

Attn: Dave Micsky
RMI COMPANY, SODIUM PLANT
P.O. BOX 490
ATTN: DOUG KORB
ASHTABULA OH 44004

Date Reported 1/15/93
Date Received 12/17/92
Order No 9212-00840
Invoice No 458

Cust # 18044
Cust P.O.# 3-78564 41

Subject : SOIL SAMPLES FOR ANALYSIS, RECD. 12/17/92

ID# DESCRIPTION	METHOD	RESULT	UNITS	% REC.	ADJ. RESULT	TECH	DATE	TIME
1 CELL SHELL STORAGE AREA, 12/16/92 @ 13:00								
TCLP EXTRACT PREP	EPA 1311					NCS	12/21/92	15:20
BARIUM IN EXTRACT	SW846 6010 ICP	2.39	MG/L	99.00	2.41	MAR	1/11/93	16:00
2 "D" BANK FLOOR NORTH, 12/16/92 @ 13:10								
TCLP EXTRACT PREP	EPA 1311					NCS	12/21/92	15:20
BARIUM IN EXTRACT	SW846 6010 ICP	0.481	MG/L	100.00	0.481	MAR	1/11/93	16:00

SIGNED Eric Estle

Send Results To :

Name DAVE MICSKY
Company RMI TITANIUM Co Sodium Plants
Address PO BOX 490
ASHTABULA OH 44004
Phone 216 544-7802

Page 1 of 1
Cooler No. 1 of 1
Date Shipped

Project No.

Project Name: Soil SAMPLES

Samplers (Signature) [signature]

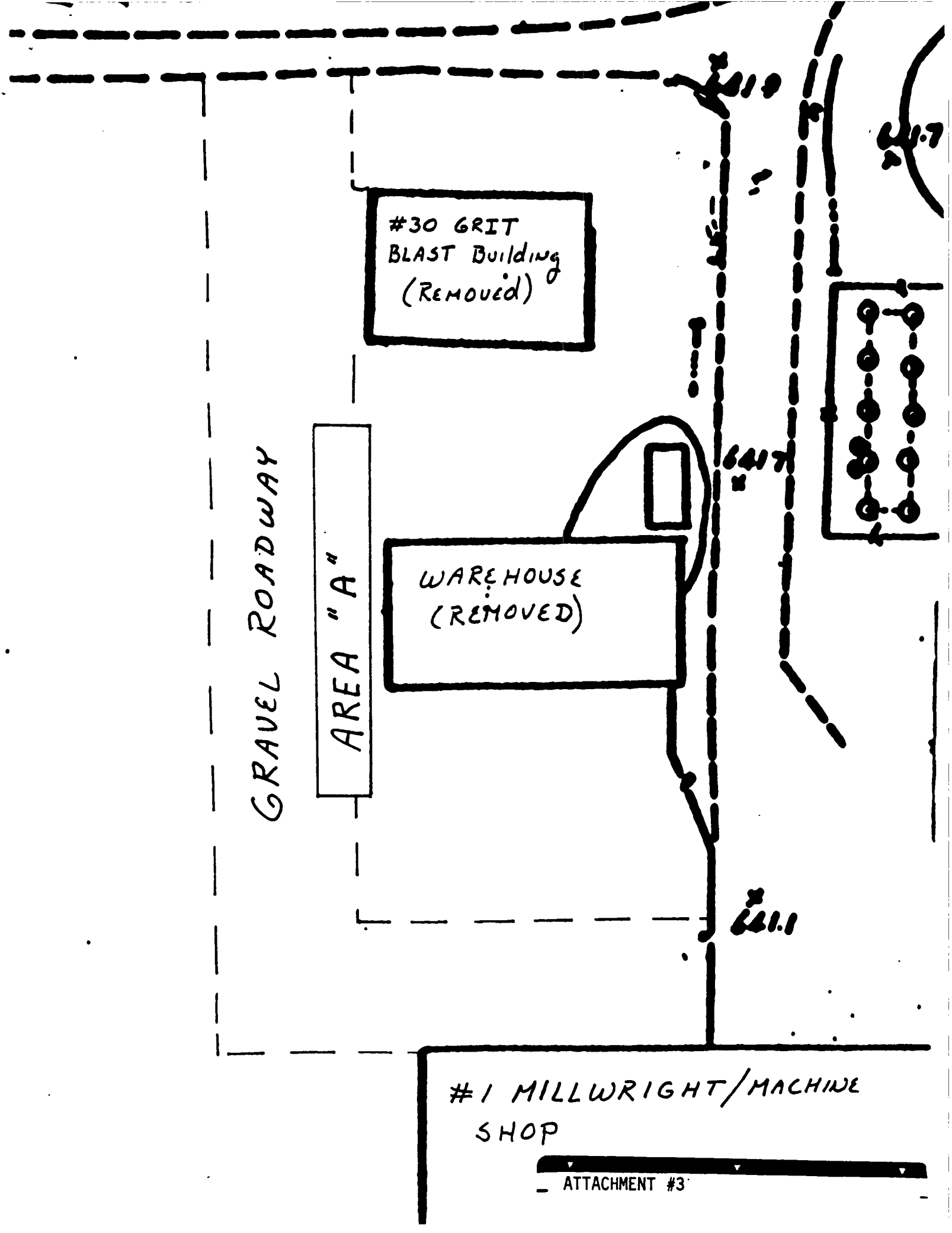
Lab Use Only	Sample No.	Date Sampled	Time	Comp.	Grab	Sample Location / Description	No. of Containers	Water/Wastewater: Extractables 1L G	No Pres. ( )	40 ml G (VOA) HCl Pres.	Nitric Acid Pres. ( )	Sulfuric Acid Pres. ( )	Sodium Hyd. Pres.		Soil/Sed/Sldg: 250 ml G (ext.met.act.)	40 ml G (VOA)	1L P (met.Hg.Cn.S--		Analysis Requested
	1	12/16/92	1300	X		Cell Shell Storage AREA	1										X		TCLP - BARIUM
	2	2/16/92	1310	X		"D" BANK Floor North	1										X		TCLP - BARIUM

Relinquished by : (Signature)	Date	Time	Received by : (Signature)	Remarks
DR Micsky	12/16	1600		Bill under 3-78564 +1

Relinquished by : (Signature)	Date	Time	Received by : (Signature)	Received for Laboratory by : (Signature)	Date / Time

DISTRIBUTION : Original and yellow copies accompany sample shipment to laboratory :
Yellow copy retained by laboratory: Pink copy retained by samplers.

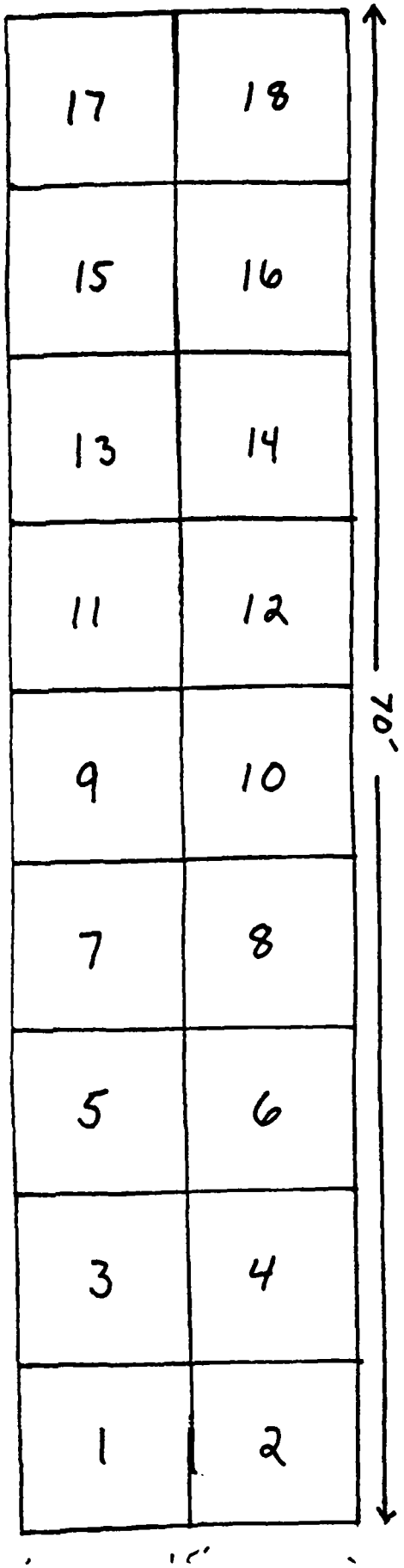
rev. 7/90

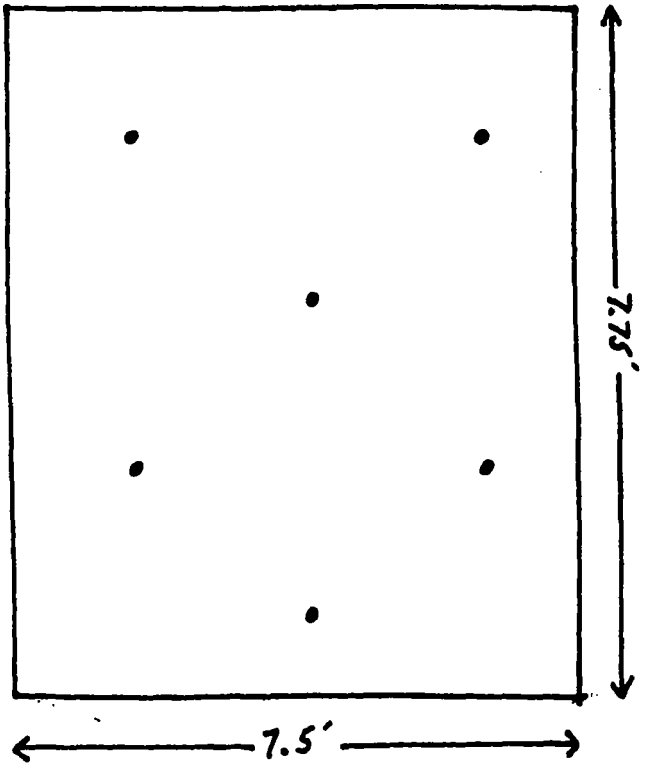


ATTACHMENT #3

SURFICIAL SOIL SAMPLING PATTERN

AREA "A" SAMPLING GRID PATTERN





SUBGRID SAMPLING PATTERN

ATTACHMENT #4

ATTACHMENT #5

OEPA SAMPLING PLAN APPROVAL

OhioEPA
State of Ohio Environmental Protection Agency
Northeast District Office
2110 E. Aurora Road
Twinsburg, Ohio 44087-1969
(216) 425-9171
FAX (216) 487-0769

Rec 2/1/93 DRM

George V. Voinovich
Governor
Donald R. Schregardus
Director

January 28, 1993

RE: RMI TITANIUM COMPANY
SODIUM PLANT
000-810-242
HWFB # 02-04-0584

Mr. David R. Micsky
Environmental Engineer
RMI Titanium Company
P.O. Box 269, 1000 Warren Ave.
Niles, Ohio 44446-0269

Dear Mr. Micsky:

We are in receipt of your January 19, 1993 letter. Please note and implement the following:

1. The cell shell area must be sampled;

2. An OEPA staff member must be present during sampling. If, after visual examination, the OEPA staff member determines that certain areas require sampling, a random numbers table will not be used;

3. Tongue depressors will not be used for sampling. RMI Titanium Company will sample using a scoop. The six subsamples will be thoroughly mixed in a bowl. The appropriate portion of the thoroughly mixed soil will be transferred to the sample jar. Proper QA/QC procedures will be followed to prevent contamination between sample;

4. The appropriate test is <u>not</u> TCLP but rather total metals;

5. When data is submitted, please demonstrate that the number of samples meet the requirements of SW 846 - Field Methods.

Please call (216) 963-1250 with any questions.

Sincerely,

Adrienne La Favre

Adrienne La Favre
Environmental Specialist
Division of Hazardous Waste
Management

ALF/fwn

cc: Dave Stroh, DHWM, CO

RMI cc: DP Koob

ATTACHMENT #6

ANALYTICAL DATA

Microbac Laboratories, Inc.
ERIE TESTING LAB
1962 WAGER ROAD
ERIE PA 16509
(814)825-8533

AIR • FUEL • WATER • FOOD • WASTES

CERTIFICATE OF ANALYSIS

RMI COMPANY, SODIUM PLANT
P.O. BOX 550
ATTN: DOUG KORB
ASHTABULA OH 44004

Date Reported 11/08/93
Date Received 10/29/93
Order No 9310-01502
Invoice No 14076

Cust # 018044
Sampled Date 10/28/93
Sampled Time 00:00
Sample Id

Permit No
Cust P.O. 3-BL 59092

Subject: 6-SOIL SAMPLES (SURFICIAL) FOR BARIUM ANALYSIS, RECD. 10/29

TEST	METHOD	RESULT	UNIT	DATE	TIME	TECH
1 SS #1, 10/28/93 @ 10:15 AM						
BARIUM	SW846 6010 ICP	1410	MG/KG	11/07/93	11:53	MWR
2 SS #2, 10/28/93 @ 10:20 AM						
BARIUM	SW846 6010 ICP	1450	MG/KG	11/07/93	11:53	MWR
3 SS #6, 10/28/93 @ 10:25 AM						
BARIUM	SW846 6010 ICP	1660	MG/KG	11/07/93	11:53	MWR
4 SS #7, 10/28/93 @ 10:35 AM						
BARIUM	SW846 6010 ICP	1540	MG/KG	11/07/93	11:53	MWR
5 SS #15, 10/28/93 @ 10:40 AM						
BARIUM	SW846 6010 ICP	1770	MG/KG	11/07/93	11:53	MWR
6 SS #18, 10/28/93 @ 10:45 AM						
BARIUM	SW846 6010 ICP	1450	MG/KG	11/07/93	11:53	MWR

ECKENFELDER INC.

CLIENT: RMI TITANIUM
DATE SAMPLED: 10/28/93
DATE RECEIVED: 11/29/93
DATE REPORTED: 12/14/93

ECKENFELDER SAMPLE NUMBER			8917	8918	8919	8920	8921
CLIENT SAMPLE DESCRIPTION			SS #1	SS #2	SS #6	SS #7	SS #15
WET CHEMISTRY/METALS	DETECTION LIMITS	METHOD NUMBER	CONC	CONC	CONC	CONC	CONC
Barium	0.10	200.7/6010	1050	1360	2470	1210	1690

ALL RESULTS EXPRESSED IN MILLIGRAMS/KILOGRAM (WET) UNLESS OTHERWISE NOTED.

ALL SAMPLES WERE EXTRACTED AND/OR ANALYZED WITHIN USEPA HOLDING TIMES UNLESS OTHERWISE NOTED.

227 French Landing Drive
Nashville, Tennessee 37228
615.255.2288
FAX 615.256.83[illegible]

ECKENFELDER INC.

CLIENT: RMI TITANIUM
DATE SAMPLED: 10/28/93
DATE RECEIVED: 11/29/93
DATE REPORTED: 12/14/93

ECKENFELDER SAMPLE NUMBER			8922	8923
CLIENT SAMPLE DESCRIPTION			SS #18	SS #18 DUPLICATE
WET CHEMISTRY/METALS	DETECTION LIMITS	METHOD NUMBER	CONC	CONC
Barium	0.10	200.7/6010	2390	2570

ALL RESULTS EXPRESSED IN MILLIGRAMS/KILOGRAM (WET) UNLESS OTHERWISE NOTED.

ALL SAMPLES WERE EXTRACTED AND/OR ANALYZED WITHIN USEPA HOLDING TIMES UNLESS OTHERWISE NOTED.

ECKENFELDER INC.

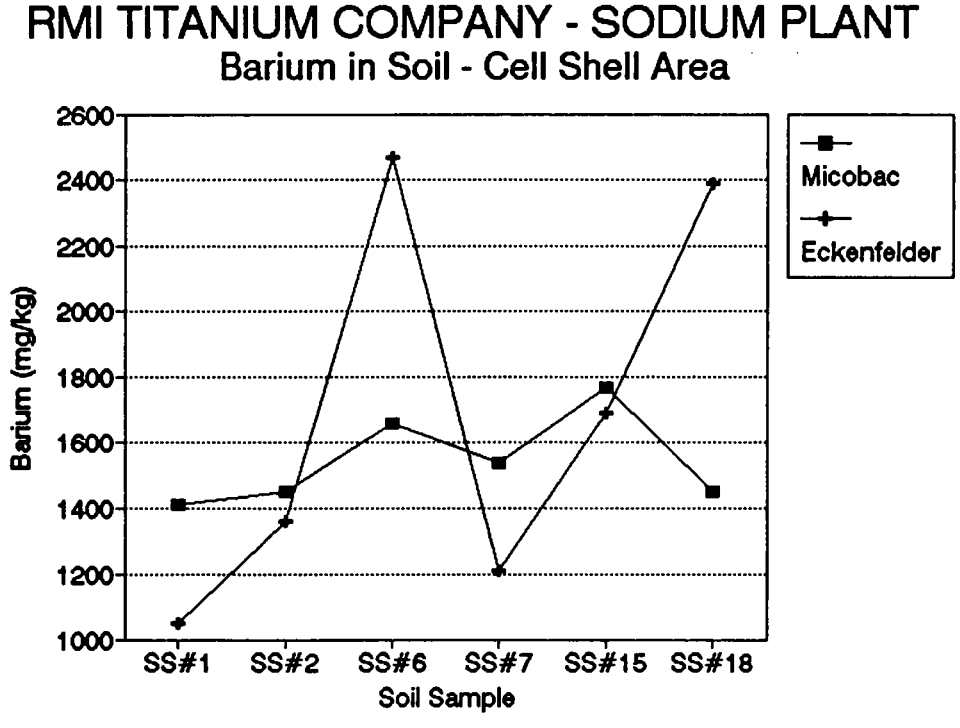
D. R&D

D. RICK DAVIS
VICE PRESIDENT/ANALYTICAL & TESTING SERVICES

RMI TITANIUM COMPANY - SODIUM PLANT
CELL SHELL STORAGE AREA

Shell Area	Barium in Soil (Total - mg/kg)		
Sample	Microbac	Eckenfelder	Combined
SS#1	1410	1050	1050
SS#2	1450	1360	1360
SS#6	1660	2470	2470
SS#7	1540	1210	1210
SS#15	1770	1690	1690
SS#18	1450	2390	2390
#	6	6	1410
MAX	1770.00	2470.00	1450
MIN	1410.00	1050.00	1660
MEAN	1546.67	1695.00	1540
STD DEV	129.19	554.85	1770
			1450

12	#
2470.00	MAX
1050.00	MIN
1620.83	MEAN
409.60	STD DEV



RMI TITANIUM COMPANY - SODIUM PLANT

Attachment #6

Cell Shell Storage Area

Sampling Plan - Number of Samples Determination

Cell Shell Area Sample	Barium in Soil (Total - mg/kg) Microbac	Eckenfelder
SS#1	1410	1050
SS#2	1450	1360
SS#6	1660	2470
SS#7	1540	1210
SS#15	1770	1690
SS#18	1450	2390
#	6	6
MAX	1770.00	2470.00
MIN	1410.00	1050.00
MEAN	1546.67	1695.00
STD DEV	129.19	554.85
VARIANCE	20,027	369,430
	df=5	df=5
	RT=5000	RT=5000
# of Samples to collect	0.004	0.074

Notes:

1. Calculation from SW-846, Chapter 9, "Sampling Plan", pages 13-14.
2. For df=5, "t"= 1.476
3. RT=5000 mg/kg Barium based on residential child risk assessment scenario.

ATTACHMENT #7

RISK-BASED ASSESSMENT

RMI TITANIUM Company

P. O. BOX 269
1000 WARREN AVENUE
NILES, OHIO 44446
FAX 216/544-7796

CERTIFIED MAIL

April 11, 1994

Mr. Donald Schregardus, Director
Ohio Environmental Protection Agency
Division of Solid and Hazardous
Waste Management
1800 WaterMark Drive
P.O. Box 1049
Columbus, OH 43266-0149

Subject: Generator Closure Certification for the #2 Cell Room Drum Storage Area
RMI Titanium Company, Sodium Plant
OHD 000 810 242, Ohio Permit No. 02-04-0584

Gentlemen:

RMI Titanium Company hereby submits the generator closure certification for the unit noted above. The unit was closed in accordance with the methods and specifications described in the Ohio EPA "Closure Plan Review Guidance for RCRA Facilities" (Interim Final, September, 1993) and applicable regulations including 40 CFR Parts 260 through 264, 270, and 124; and OAC Rules 3745-55-11, 3745-55-78, and 3745-56-58. Closure began on October 28, 1993 and was completed on November 15, 1993.

If you should require any additional information, please contact me at 216/544-7688.

Sincerely,

Richard L. Mason
Director
Environmental Affairs

sim

enclosure

c: Adrienne LaFavre, OEPA-NEDO
Thomas Matheson, USEPA-Region 5

RMI TITANIUM COMPANY

SODIUM PLANT

STATE ROAD AND EAST 6TH STREET

ASHTABULA, OHIO 44004

U.S. EPA I.D. #OHD000810242

Ohio EPA Permit No. 02-04-0584

GENERATOR CLOSURE CERTIFICATION FOR THE #2 CELL ROOM DRUM STORAGE AREA

April, 1994

1. Description of the Facility:

The RMI Titanium Company - Sodium Plant (RMI-SP) is located in Ashtabula County, Ashtabula, Ohio and is owned by the RMI Titanium Company, Niles Ohio. The equipment and structure on the 61 acre site are owned by the RMI Titanium Company. The RMI-SP now employs approximately 10 to 20 people. The plant's U.S. EPA I.D. number is OHD00810242, and the Ohio EPA Permit number is 02-04-0584.

The Sodium Plant ceased manufacturing in February, 1992, but continues ancillary purification and marketing of stored sodium and treatment of resultant wastes. Sodium and Chlorine were manufactured via the Down's Electrolytic Process.

This generator closure plan was designed to ensure that the unit being closed will not require further maintenance and controls; to minimize or eliminate threat to human health or the environment; and to avoid escape of hazardous wastes, hazardous waste constituents, leachate, or waste decomposition products to the ground or surface waters or to the atmosphere.

The drum storage area was closed in accordance with the methods and specifications described in the Ohio EPA "Closure Plan Review Guidance for RCRA Facilities" (Interim Final, September, 1993), and applicable regulations including 40 CFR Parts 260 through 264, 270, and 124, and OAC Rules 3745-55-11, 3745-55-78, and 3745-56-58. Closure began on October 28, 1993, attended by Mrs. Adrienne LaFavre, Ph.D., Ohio EPA\NEDO, and was completed on November 15, 1993. After completion of the closure the area will not be used for any further hazardous waste storage.

2. Description of Waste Management Unit to be Closed:

#2 Cell Room Drum Storage Area

The #2 Cell Room Drum Storage Area was a delineated area at the northwest corner on the first floor of the New Shop building. The storage area had the following dimensions: 21'(L) x 14' (W) with a solid 4" concrete floor. The area held 43 drums of Barium Cell Bath, containing Barium Chloride (D005). The drums contained a monolithic solid salt mixture containing Sodium Chloride, Barium Chloride and Calcium Chloride. All drums were labeled, sealed, and in good structural condition.

3. Map of Facility

See Attachment #1.

4. Detailed Drawing of Unit to be Closed

See Attachment #2.

5. List of Hazardous Waste:

Source Name	Chemical	EPA Waste No.	Maximum Inventory (Lbs.)
Drum Storage	Barium	D005	34,400 (43 drums x 800 lbs/drum)

6. Removal of Waste

Due to the nature of the material stored in the area, i.e. the drums contained only a monolithic solid, all drums were of good condition (all drums were sealed and showed no signs of deterioration) and no visible contamination from the drums was

noted in the area, the removal procedures was as follows:

o The area was broom cleaned and scraped until visibly clean.

o The floor sweepings were collected and placed into a DOT approved open top 55-gallon steel drum (1A2) in accordance with: "Closure Plan Review Guidance for RCRA Facilities", Ohio EPA (Interim Final, September, 1993) page 30, "Closures Involving Characteristic Wastes Only."

o A composite sample of the floor sweeping was obtained and analyzed for Barium by an independent laboratory via the TCLP method (see Attachment #3).

o The TCLP extract from floor sweepings was found to contain 0.394 mg/l Barium, significantly less than the TCLP limit (100 mg/l) for barium, and the sweepings were disposed off-site as a solid waste.

7. Schedule for Closure

The closure schedule for the RMI-SP #2 Cell Room Drum Storage Area was conducted as follows:

	Days
o Notify Ohio Environmental Protection Agency of intent to initiate closure	-10
o Initiate closure	0
o Analyze samples and results	30
o RMI Titanium Company certify closure	180

8. Air Emission and Wastewater

The closure activities did not result in any air emissions or wastewater.

9. Personnel Safety and Fire Prevention

All employees involved with this closure have completed the required 40 hours of HAZWOPER training (1910.1200) as promulgated by the Occupational Safety and Heath Administration (OSHA)

Special protective clothing was not required for employees handling cell bath waste. However the employees wear the following:

1) Safety toed shoes

2) Safety glasses with side shields

All facility personnel, as well as contractors and visitors to the site that were involved with the closure of the unit, were required to wear at a minimum safety glasses with side shields and steel toed shoes.

No unusual occurrences occurred during the drum storage area closure.

10. Decontamination Efforts

At the time of "clean closure" of the drum storage area, the area was broom swept and scraped to remove all visible material from the concrete flooring.

11. Remediation Standards for Soils

Since the material in the drums was a monolithic solid, and since the area consists of concrete flooring in an enclosed building, checking for soil contamination was not required.

12. Risk-Based Remediation Standards

Not Applicable

13. Sampling Plan and Analytical Procedures

1) Parameters to be analyzed: The sample was analyzed for Barium via the TCLP Method (40 CFR 261, App. II).
2) Number of samples and locations: Because of the limited amount of material generated (5-10 pounds) one composite sample was collected.
3) Background samples: Not applicable.
4) Sample type: Because of the limited amount of material generated (5-10 pounds) one composite sample was collected.
5) Sampling methods and equipment: Compositing of the sample was conducted in accordance with methods from SW-846.
6) Analytical methods: The sample was prepared by the TCLP method and analyzed for barium via method 7081.
7) Laboratory quality assurance/ quality control (QA/QC) plan: The independent laboratory maintains a QA/QC plan

and applicable portions of this plan will be provided upon request.

8) "Clean" level for soil and rinsate: Because the closure involves only a characteristic waste, the clean level will be met as described in "Closure Plan Review Guidance for RCRA Facilities", Ohio EPA (Interim Final, September, 1993) page 30, "Closures Involving Characteristic Wastes Only." which states in part:

> "Soils contaminated with hazardous constituents derived solely from characteristic wastes shall be removed and managed as hazardous wastes until sampling results and statistical analyses conducted in accordance with the waste characterization procedures described in USEPA Publication SW-846 (Chapter 9) indicates otherwise. Soils contaminated with hazardous constituents above background, but do not exhibit a characteristic of a hazardous waste, shall be removed and managed as a solid waste, unless shown to be clean via the risk assessment procedures outlined in Section 3.11.3 below."

Therefore, all waste generated was initially handled as hazardous waste pending the analytical results at which time disposal was handled as described in Section 6.

14. Description of Removal Efforts

Clean closure of the drum storage area generated between 5 and 10 pounds of floor sweepings to be disposed. Floor sweepings were in a container labeled, "DRUM STORAGE AREA FLOOR SWEEPINGS". After receipt of analytical results the container was handled as described in section 6.

15. Specifics for Landfill Closure

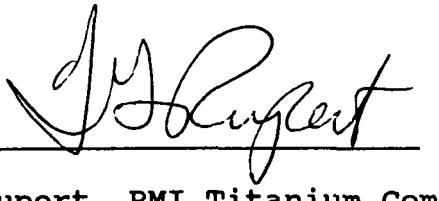
Not Applicable.

16. Certification

This certification of generator closure is being submitted by certified mail within 180 days of completion of closure to the Director, OhioEPA, the Northeast District Office, OhioEPA, and Region 5, U.S. EPA. The certification states that the hazardous waste management unit was closed in accordance with the specifications of the approved closure plan. This report serves as the certification of closure for the #2 cell room drum storage area.

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: 

Timothy G. Rupert, RMI Titanium Company,
Senior Vice President and Chief Financial Officer

Date: 4/27/94

RMI TITANIUM Company

P. O. BOX 269
1000 WARREN AVENUE
NILES, OHIO 44446
FAX 216/544-7796

REGISTERED MAIL

March 31, 1994

Mr. Donald Schregardus, Director
Ohio Environmental Protection Agency
Division of Solid and Hazardous
Waste Management
1800 WaterMark Drive
P.O. Box 1049
Columbus, OH 43266-0149

Mr. Valdas Adamkus
Regional Administrator
U.S. EPA
Region 5, HRP-8J
77 West Jackson Blvd.
Chicago, IL 60604-3590

Subject: Closure Certification for the South Chute Waste Pile
RMI Titanium Company, Sodium Plant
OHD 000 810 242, Ohio Permit No. 02-04-0584

Gentlemen:

RMI Titanium Company hereby submits the closure certification for the South Chute Waste Pile. The waste pile was closed in accordance with the methods and specifications described in the Part B Permit Application Closure Plan; the U.S. EPA Hazardous Waste Treatment and Storage Permit (Attachment VI, Closure Plan), issued March 25, 1987; the Ohio EPA Hazardous Waste Facility Permit No. 02-04-0584; applicable regulations including 40 CFR Parts 260 through 264, 270, and 124; and OAC Rules 3745-55-11, 3745-55-78, and 3745-56-58. Closure began on February 14, 1994 and was completed on March 28, 1994.

If you should require any additional information, please contact me at 216/544-7688.

Sincerely,

Richard L. Mason
Director
Environmental Affairs

sim

enclosure

c: Adrienne LaFavre, OEPA-NEDO
Thomas Matheson, USEPA-Region 5
James Steudler, THG

THG & ASSOCIATES

RMI TITANIUM COMPANY

SODIUM PLANT

HAZARDOUS WASTE FACILITY

ASHTABULA, OHIO

U.S. EPA ID No. OHD 000 810 242

Ohio EPA Permit No. 02-04-0584

CLOSURE CERTIFICATION FOR THE

SOUTH CHUTE WASTE PILE

March 31, 1994

THG & ASSOCIATES

U.S. EPA ID No. OHD 000 810 242
Ohio EPA Permit No. 02-04-0584

Introduction

RMI Titanium Company, Sodium Plant retained THG & Associates (Saegertown, PA) to oversee the final closure of the "south chute" waste pile. THG's Registered Professional Engineer (James R. Duby) viewed the waste pile before and after closure, and was present during all critical closure activities including liner decontamination, dike installation, and rinse sampling.

Closure Performance Standard

The closure plan was designed to ensure that the unit being closed will not require further maintenance and controls; to minimize or eliminate threat to human health or the environment; and to avoid escape of hazardous wastes, hazardous waste constituents, leachate, or waste decomposition products to the ground or surface waters or to the atmosphere.

The south chute waste pile was maintained as an indoor dry pile until all cell bath waste had been removed from the site.

The proposed schedule for closure of the waste pile from the Part B Permit is provided in Attachment 1. With approval from the U.S. EPA and Ohio EPA, closure was initiated on February 14, 1994, prior to the 180 day notification period (see Attachments 2 and 3). All waste had been removed after shutdown of the Downs Cell process in February, 1992. The schedule allowed for a "worst case" requirement for a second cleaning that was not needed.

U.S. EPA ID No. OHD 000 810 242
Ohio EPA Permit No. 02-04-0584

Closure Procedures - Disposal or Decontamination of Equipment, Structures, and Soils

Closure of Waste Pile

The waste pile was closed in accordance with the methods and specifications described in the Part B Permit Application closure plan, the U.S. EPA Hazardous Waste Treatment and Storage Permit (Attachment VI, Closure Plan) issued March 25, 1987, the Ohio EPA Hazardous Waste Facility Permit No. 02-04-0584, and applicable regulations including 40 CFR Parts 260 through 264, 270, and 124, and OAC Rules 3745-55-11, 3745-55-78, and 3745-56-58. Closure began on February 14, 1994 and was completed on March 28, 1994.

The south chute (waste pile) remained in operation until all cell bath waste had been removed from the site after shutdown of the Downs Cell process. Since the south chute was an indoor dry pile, all of the material was easily removed. The area was swept and brushed clean of excess residue; with all collected residue being placed in DOT type 1A2 (55-gallon, steel) drums and handled as hazardous waste. The sheet metal siding and roof were removed and a small amount of residue having the appearance of rust scale was found between the waste pile wall and the outside wall. This residue was swept up and placed in the drums noted above for off-site shipment to a hazardous waste facility for disposal. After

removal of the roof and siding, the south chute was covered with a tarpaulin during inactive periods until the closure was complete.

The metal interior side walls and floor were removed, decontaminated via steaming and discarded. The steam condensate was collected by vacuum and transferred into 55-gallon drums. All solid materials collected from decontaminating the steel floor or concrete sub-floor were placed in 55-gallon steel drums, separate from steam condensate, for disposal as hazardous waste. A six inch high by twelve inch wide impermeable dike constructed of concrete was placed around the perimeter of the former waste pile (see Attachment 4). The dismantled waste pile including the concrete walls and surrounding area were then decontaminated with a water wash down. Steam condensate, wash and rinse waters were collected via vacuum and placed in 55-gallon steel drums pending analytical results. Samples of the water obtained via coliwasa were analyzed using SW-846 methods for barium, lead and cadmium (see Attachment 5). The final waste pile rinse contained 0.389 mg/l barium, <0.05 mg/l lead and <0.002 mg/l cadmium, less than the clean closure limits of 10.0 mg/l barium, 0.5 mg/l lead and 0.1 mg/l cadmium as specified in the approved closure plan. Since all the wash and rinse waters contained less than the TCLP limits for barium, lead and cadmium they were discharged through the plant's wastewater treatment facility.

After the above decontamination procedures, the waste pile's remaining concrete sub-floor and walls were removed and discarded as demolition waste. The area was then backfilled with clean gravel. Since the material in the pile was a solid, and since the south chute was lined with steel plate, having a continuous, water-tight weld connecting sides to base, and the surrounding surface area was completely covered with concrete or asphalt, checking for soil contamination was not required.

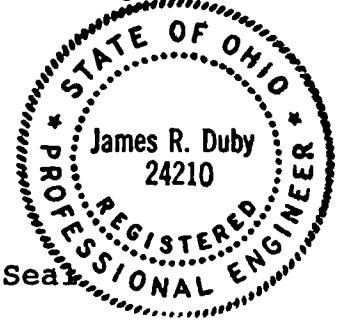
Notices Required for Disposal Facilities

This certification of closure is being submitted by registered mail within 60 days of completion of closure to the Regional Administrator, U.S. EPA, and the Director, OEPA, as required. The certification states that the hazardous waste management unit was closed in accordance with the specifications of the approved closure plan. This report serves as the certification of closure for the south chute waste pile.

U.S. EPA ID No. OHD 000 810 242
Ohio EPA Permit No. 02-04-0584

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



Seal

Signature: James R Duby

James R. Duby, THG & Associates,
Registered Professional Engineer

Date: 3-30-94

Signature: T G Rupert

Timothy G. Rupert, RMI Titanium Company,
Vice President and Chief Financial Officer

Date: 3/31/94

Added 8-20-86

Attachment 1

TABLE I-1. CLOSURE SCHEDULE FOR THE THERMAL OXIDATION FACILITY AND WASTE PILE

	Days
o Notify Ohio Environmental Protection Agency of intent to initiate closure	-180
o Initiate Closure	0
o Remove waste inventory, load and transfer	10
o Decontaminate building	40
o Rinse water sampling	50
o Analyze samples and results	70
o Decontaminate equipment	80
o RMI Company and independent Professional Engineer certify closure	110
or	
O Repeat building decontamination, rinse water sampling, and sample analysis prior to decontamination of equipment	150
o RMI Company and independent Professional Engineer certify closure	180

RMI TITANIUM Company

P. O. BOX 269
1000 WARREN AVENUE
NILES, OHIO 44446-0269
FAX 216/544-7798

Attachment 2

EXPRESS MAIL

November 10, 1993

Mr. Tom Matheson
Environmental Scientist
United States Environmental Protection Agency
Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3590

Attention: HRPP-8J

Re: RMI Titanium Company - Sodium Plant
OHD 000-810-242
Notification of South Chute Waste Pile Closure

Dear Mr. Matheson:

The hazardous waste management permit for the RMI Titanium Company - Sodium Plant, U.S.EPA Facility I.D. #OHD 000-810-242, General Facility Condition M.4., states the permittee shall notify the Regional Administrator at least 180 days prior to the date he expects to begin closure. Permit Attachment VI Section I-1F states closure will be initiated 180 days after notice to the State of Ohio. 40 CFR § 264.112(d)(1), states that the owner must notify the Regional Administrator in writing at least 60 days prior to the date on which he expects to begin closure of a waste pile.

The Sodium Plant electrolytic process for the production of sodium and chlorine has been shut down and South Chute waste pile will not receive any waste in the future. Further, Ohio EPA is currently reviewing the Ohio Hazardous Waste Facility Installation and Operation Permit for the RMI Titanium Company - Sodium Plant. By closing the waste pile before the permit is renewed, Ohio will be able to delete a large and unnecessary portion of the permit and thereby expedite its permit renewal. By way of this letter, RMI respectfully requests that the U.S.EPA waive both the 180 day notification period in the permit and the 40 CFR 60 day notification period, and allow for the final closure of the South Chute at the earliest mutually convenient time which can be arranged. Ohio EPA has already provided such a waiver (see enclosed letter). Regardless of whether U.S.EPA elects to waive the notification, this letter is intended

to serve as the written notice to the Regional Administrator of RMI's intent to perform final closure of the waste pile.

Please contact me at 216/544-7688 if you should have any questions or comments

Sincerely,

Richard L. Mason
Director
Environmental Affairs

enclosure

cc: D. P. Korb
D. R. Micsky

OhioEPA
State of Ohio Environmental Protection Agency
Northeast District Office
2110 E. Aurora Road
Twinsburg, Ohio 44087-1969
(216) 425-9171
FAX (216) 487-0769

George V. Voinovich
Governor
Donald R. Schregardus
Director

Attachment 3

July 21, 1993

RE: RMI TITANIUM CO.
SODIUM PLANT
ASHTABULA COUNTY
OHD 000-810-242
#02-04-0584

Mr. Richard Mason
RMI Titanium Co.
1000 Warren Ave.
Niles, Ohio 44446-0269

Dear Mr. Mason:

We are in receipt of your July 19, 1993 letter. The Ohio EPA elects to waive the notification period prescribed in both the Part B Permit and section 3745-55-12 of the OAC. RMI Titanium Co. can begin closure of the South Chute. Please note that closure must follow all the requirements of the closure plan included in the Part B Permit and the OAC.

Please notify the Northeast District Office prior to the onset of closure activities. I would like to inspect the unit. Perhaps we can coordinate my inspection of the South Chute with my presence at the soil sampling of the bath storage area.

Please contact me at (216) 963-1250 with any questions.

Sincerely,

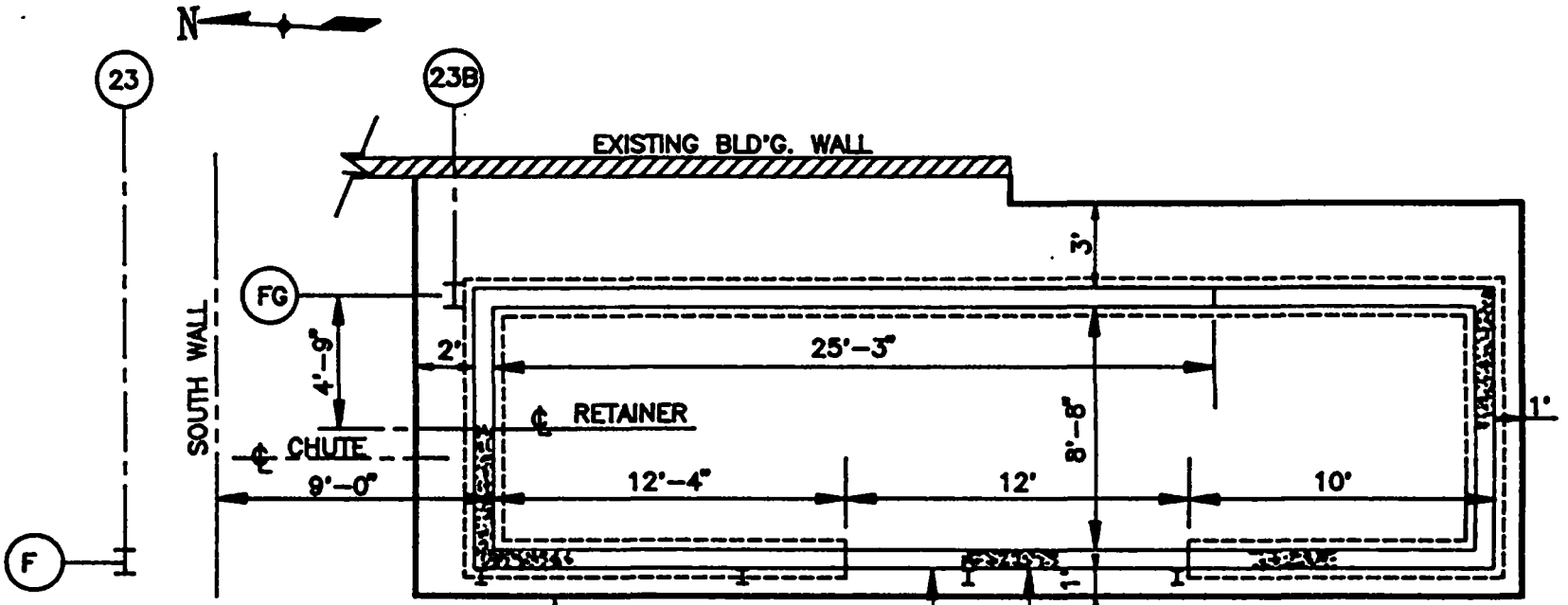
Adrienne La Favre

Adrienne La Favre
Environmental Specialist
Division of Hazardous Waste
Management

ALF/fwn

cc: Ed Lim, OEPA, CO, DHWM
Randy Meyer, OEPA, CO, DHWM
Frank Popotnik, OEPA, NEDO, DHWM

LS-420



APPROXIMATE LOCATION OF CLOSURE DIKING (6"H X 12"W)

ADDITIONAL WALL SECTION 4'-0" HIGH

NOTE:
#6 BAR–HORZ AND VERTICAL @ 12" O.C.
DOWEL TO EXISTING WALL AND CONCRETE SLAB.

FLOOR–1" STL PLATE (CHECKER)
WALL–1/2" STL PLATE
FILLET WELD ALL SEAMS
GROUT ALL PLATE.

RMI COMPANY
ASHTABULA, OHIO

SOUTH CHUTE WASTE PILE

DRAWN BY:	DATE:	LS-420
J. TREPAC	3-29-94	

Attachment 4

Microbac Laboratories, Inc.
ERIE TESTING LAB
1962 WAGER ROAD
ERIE PA 16509
(814)825-8533

Attachment 5

AIR • FUEL • WATER • FOOD • WASTES

CERTIFICATE OF ANALYSIS

RMI COMPANY, SODIUM PLANT

P.O. BOX 550
ATTN: DOUG KORB
ASHTABULA OH 44004

Date Reported 3/28/94
Date Received 3/17/94
Order No 9403-00828
Invoice No 19806

Cust # 018044
Sampled Date 3/17/94
Sampled Time 10:15
Sample Id RINSE

Permit No
Cust P.O. 3-BL 59092

Subject: SOUTH CHUTE RINSE (OUTSIDE WALL) SOUTH CHUTE CLOSURE

TEST	METHOD	RESULT	UNIT	DATE	TIME	TECH
1 SOUTH CHUTE RINSE (OUTSIDE WALL) 3/17/94 @ 10:15 A.M.						
BARIUM	EPA 1987 ICP	0.389	MG/L	3/22/94	14:15	MWR
LEAD	EPA 1987 ICP	(0.050	MG/L	3/22/94	14:14	MWR
CADMIUM	EPA 1987 ICP	(0.002	MG/L	3/22/94	14:53	MWR

SAMPLE SUBMITTED BY RMI/SODIUM PLANT

Microbac Laboratories, Inc.
ERIE TESTING LAB
1962 WAGER ROAD
ERIE PA 16509
(814)825-8533

AIR • FUEL • WATER • FOOD • WASTES

CERTIFICATE OF ANALYSIS

RMI COMPANY, SODIUM PLANT

P.O. BOX 550
ATTN: DOUG KORB
ASHTABULA OH 44004

Date Reported 3/04/94
Date Received 3/02/94
Order No 9403-00222
Invoice No 18812

Cust # 018044
Sampled Date 3/02/94
Sampled Time 00:00
Sample Id WATER

Permit No
Cust P.O. 3-BL 59092

Subject: 3-WASTEWATER SAMPLES (SOUTH CHUTE CLOSURE)

TEST	METHOD	RESULT	UNIT	DATE	TIME	TECH
1 SOUTH CHUTE RISE (INSIDE CHUTE) 3/2/94 @ 0830 (COMP.)						
BARIUM	EPA 1987 ICP	2.72	MG/L	3/03/94	13:43	MWR
LEAD	EPA 1987 ICP	(0.050	MG/L	3/03/94	13:42	MWR
CADMIUM	EPA 1987 ICP	0.011	MG/L	3/03/94	13:42	MWR
2 COMPOSITE RINSE WATER, DRUMS, 3/2/94 @ 0900						
BARIUM	EPA 1987 ICP	0.600	MG/L	3/03/94	13:43	MWR
LEAD	EPA 1987 ICP	(0.050	MG/L	3/03/94	13:42	MWR
CADMIUM	EPA 1987 ICP	0.003	MG/L	3/03/94	13:42	MWR
3 SOUTH CHUTE RINSE (OUTSIDE WALL) 3/2/94 @ 1115, COMPOSITE						
BARIUM	EPA 1987 ICP	29.9	MG/L	3/03/94	13:43	MWR
LEAD	EPA 1987 ICP	0.596	MG/L	3/03/94	13:42	MWR
CADMIUM	EPA 1987 ICP	0.017	MG/L	3/03/94	13:42	MWR
RUSH CHARGE		.		3/02/94		MWR

SAMPLES SUBMITTED BY RMI/SODIUM

RMI Company

P. O. BOX 269
1000 WARREN AVENUE
NILES, OHIO 44446
216/652-9951 TWX 810-436-2600

May 27, 1987

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Ms. Christine Frazier
Ohio EPA
Northeast District Office
2110 E. Aurora Road
Twinsburg, Ohio 44087

Subject: Documentation of Closure of the Sodium Burning Room (old) and Open-Burning Pad at the Sodium Plant

Dear Ms. Frazier:

RMI Company would like to submit at this time the attached engineer's report - verifying closure of two RCRA units at the Sodium Plant.

If you have any questions or need additional information, please give me a call at 216-544-7688.

Sincerely,

Joe T. Holman
Director
Environmental Affairs

Attachment

cc: Mr. Dan Fisher
Ohio EPA
P.O. Box 1049
361 East Broad Street
Columbus, Ohio 43266-1049

Ms. Francine Norling
U.S.EPA, Region V
230 South Dearborn Street
Chicago, Illinois 60604

b&n 1912 A STANDARD OF EXCELLENCE 75 Years A TRADITION OF SERVICE

May 1, 1987

Mr. Richard L. Terlecki
Manager - Plant Engineering Ashtabula Plants
RMI Company
P.O. Box 490
Ashtabula, Ohio 44004

RE: RCRA Closure Plan
Open Burning Pad & Sodium
Burning Room ("OLD")

Dear Mr. Terlecki:

On March 27, 1987 a visual inspection was made by Burgess & Niple, Limited. The Sodium Burning Room ("OLD") was not being used for the burning of sodium wastes. The room construction consisted of a plywood ceiling; concrete block with cement coating for walls and a concrete floor. There were no traces of sodium and/or residue present. Located in the room was a diesel powered steam cleaner and washer. The roof mounted exhaust ventilator fan was physically removed. The duct opening was plugged.

Cleaning water entering the Sodium Burning Room ("OLD") travels by gravity to a trench drain. The trench drain empties into sump pit #2. Sump pit #2 pumps process wastes into Pond #2. Pond #2 is part of RMI's permitted waste treatment facility. The physical cleaning and washwater treatment operations were performed by the RMI Company's personnel prior to the March 27, 1987 visual inspection.

On April 21, 1987 a second visual inspection was made. The open burning pad was inspected. The burning scow and utensils had been removed from the site. The dolly or buggy that holds the sodium burning container was intact. There is no storage of hazardous sodium waste on the pad. The open burning pad slopes to a trench drain. The trench drain empties into a sump pit. The sump pit pumps into Pond #2 of the plant's waste treatment facility. The piping, trench drain and sump pit have deteriorated and were not operational during the April 21, 1987 visual inspection .

As specified under 40 CFR Part 265 Subpart G (45FR 33242, May, 19, 1980) of the Resource Conservation and Recovery Act of 1976, Burgess & Niple, Limited verified the closure plan and activities were performed as per RMI Company's approved Closure Plan documents for the Sodium Burning Room ("OLD") and the Open-Burning Pad.

Respectfully,

BURGESS & NIPLE, LIMITED

Thomas J. Likavec, P.E.

Registration No. 42522

TJL:law

cc: Mr. Mark R. Rowland
Mr. Terrence A. Sack, P.E.
File

RMI TITANIUM

RMI Company

RICHARD J. GERARDY
VICE PRESIDENT – ENGINEERING

P. O. BOX 269
1000 WARREN AVENUE
NILES, OHIO 44446
216/652-9951 TWX 810-436-2600

April 28, 1986

Mr. W. E. Muno
U. S. EPA
RCRA Enforcement
230 S. Dearborn
Chicago, Illinois 60604

Subject: Certification Statement in Compliance with 40 CFR §§ 265 & 27

Dear Mr. Muno:

I, R. J. Gerardy, am the owner/operator of RMI Company, Sodium Plant (EPA I.D. No.: OHD000810242) located at: State Road and E. 6th Street, Ashtabula, Ohio 44004. I certify that the Cell Bath Waste Pile (South Chute) and Burning Room (name of unit(s) as identified on the attached surface topography map) at this facility is in compliance with: (1) All applicable ground-water monitoring and financial responsibility requirements in 40 CFR Part 265 Subparts F and H; or (2) all applicable State ground-water monitoring and financial responsibility requirements which are part of the State's authorized hazardous waste program under section 3006 of RCRA.

I, R. J. Gerardy, as owner-operator of RMI Company, Sodium Plant (EPA I.D. No.: OHD000810242) located at: State Road and E. 6th Street, Ashtabula, Ohio 44004, knowingly and willfully make this true and accurate certification to the United States Environmental Protection Agency pursuant to section 3005(e) of the Hazardous and Solid Waste Disposal Act, as amended.

Date: 4/29/86

R. J. Gerardy

R. J. Gerardy
Vice President-Engineering

cc: Ms. Deborah L. Tegtmeyer
Ms. Christine Frazier